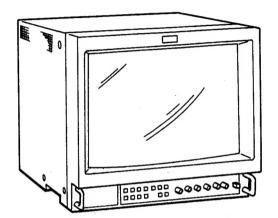
PVM-1353MD/1453MD

SERVICE MANUAL



US Model Canadian Model

PVM-1353MD

Chassis No. SCC-H31B-A

AEP Model

Chassis No. SCC-H29C-A

SPECIFICATIONS (PVM-1353MD)

Video signal

Color system

Resolution

Aperture correction Frequency response

NTSC, PAL 600 TV lines 0 dB - +6.0 dBLINE 9.0 MHz (-3 dB)

RGB 10.0 MHz (-3 dB)

Synchronization

AFC time constant 1.0 msec.

Picture performance

Overscan

20% overscan of CRT effective

Normal scan

screen area 7% overscan of CRT effective screen

Underscan

5% underscan of CRT effective

screen area

Linearity

Horizontal: Less than 4% (typical)

Vertical: Less than 4% (typical) Central area

Convergence

0.6 mm (typical) Peripheral area

0.8 mm (typical)

Raster size stability

H 1.0%, V 1.5% High voltage regulation

CRT

Color temperature

SMPTE-C phosphor

6500K/5600K/USER (3200K -10000K, factory setting is 6500K)

Inputs

Y/C IN

4-pin mini DIN connector See the pin assignment on the

page 2.

VIDEO IN

BNC connector 1Vp-p ±6 dB, sync

negative

AUDIO IN

phono jack, -5 dBu, more than 47k

ohms

R/R-Y IN, G/Y IN, B/B-Y IN

BNC connector

R, G, B channels Sync on green

0.7 Vp-p ±6 dB

1.0 Vp-p Sync negative, 75 ohms

terminated

- Continued on next page -



TRINITRON® COLOR VIDEO MONITOR SONY R-Y, B-Y channels

0.7 Vp-p ±6 dB

Y channel

1.0 Vp-p ±6 dB

(Standard color bar signal of 75%

chrominance)

EXT SYNC IN

BNC connector composite sync

4 Vp-p ±6 dB, negative

Outputs

Y/C OUT

4-pin mini DIN connector, 75 ohms

terminated

VIDEO OUT **AUDIO OUT** BNC connector, 75 ohms terminated

phono jack R/R-Y OUT, G/Y OUT, B/B-Y OUT

EXT SYNC OUT

BNC connector, 75 ohms terminated BNC connector, 75 ohms terminated

DC OUT

5 V/1 A

Speaker output

Output level 0.8 W

Remote input

REMOTE 1

8-pin mini DIN

See the pin assignment on the

page 2.

RS-232C

9-pin D-sub

See the pin assignment on the

page 2.

General

Power requirements

120 V AC. 50/60 Hz

1.3 A

Capable of 100 to 240V operation

Operating temperature range

0-35°C

Storage temperature range

−10 − **+**40°C

Humidity

0 - 90%

Dimensions

Approx. $346 \times 340 \times 411.5$ mm

(w/h/d)

 $(13^5/8 \times 13^1/2 \times 16^1/4 \text{ inches})$

not incl. projecting parts and controls

Mass

Approx. 16.7 kg (36 lb 14 oz)

Accessory supplied

AC power cord (1) AC plug holder (1)

Splash proof covers (2) Control panel cover (1)

Panel hinges (2)

Remote Control Connector 8-pin mini DIN (1) Operating Instructions (1)

Interface Manual for Programmers (1)

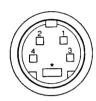
Quick Reference Card (1) Double-sided adhesive tapes (4)

0 dBu = 0.775 Vr.m.s.

Design and specifications are subject to change without notice.

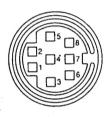
Pin assignment

Y/C IN connector (4-pin mini DIN)



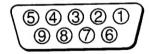
Pin No.	Signal	Description
1	Y-input	1 Vp-p, sync negative, 75 ohms
2	CHROMA sub- carrier-input	300 mVp-p, burst Delay time between Y and C: within 0±100 nsec., 75 ohms
3	GND for Y-input	GND
4	GND for CHROMA-input	GND

REMOTE 1 connector (8-pin mini DIN)



Pin No.	Signal
1	REMOTE ON/OFF
2	LINE A
3	GND
4	LINE B
5	TALLY
6	OVER SCAN
7	RGB A
. 8	RGB B

RS-232C connector (9-pin D-sub)



Pin No.	Signal	
1	_	
2	RX	
3	TX	
4	_	
5	GND	
6	_	\$
7	RTS	
8	CTS	
9		

PVM-1353MD/1453MD

SONY. SFRVICE MANUAL

US Model Canadian Model

PVM-1353MD

Chassis No. SCC-H31B-A

AEP Model PVM-1453MD Chassis No. SCC-H29C-A

CORRECTION-1

File this correction with the service manual.

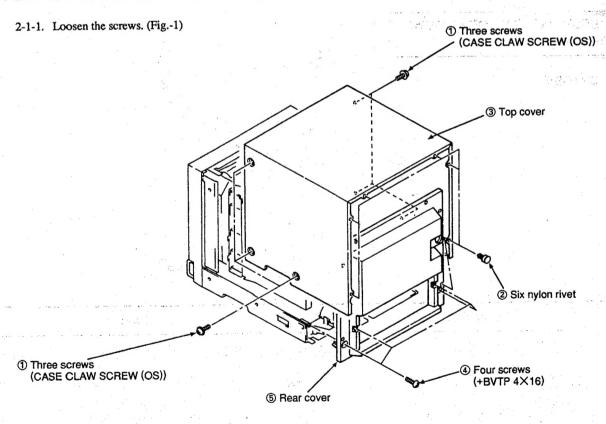
INTRODUCTION

DISASSEMBLY and EXPLODED VIEWS have some additions. (PVM-1353MD only)

: Indicates corrected portion

1. SECTION 2 DISASSEMBLY Page 27

: 2-1. TOP COVER AND REAR COVER REMOVAL

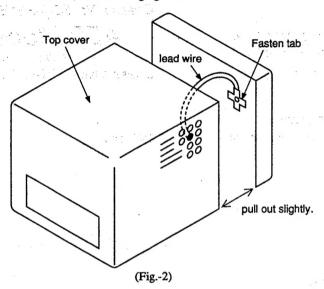


(Fig.-1)

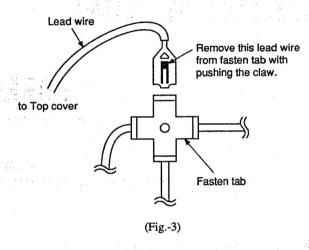


2-1-2. Pull out TOP COVER to backward slightly. (Fig.-2)

Caution: At this time, must not pull out to backward so considerably because the lead wire of TOP COVER breaks. Only the lead wire exchanging is not able when the lead wire has broken but COVER COMPLETE ASSY, TOP exchanging is able.



2-1-3. Four lead wires are connecting to the fasten tub and remove a lead wire which connected to the TOP COVER. (Fig.-3)

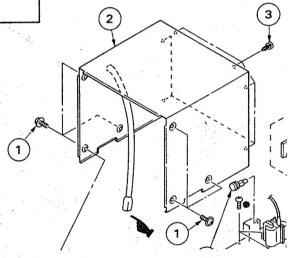


2-1-4. Remove the TOP COVER.

2. SECTION 7 EXPLODED VIEWS

Page 95

7-1. CHASSIS



Incorrect	Correct		
Ref.No. PART No. DESCRIPTION	REMARK	Ref.No. PART No. DESCRIPTION	REMARK
1 4-847-802-11 SCREW (OS), CASE, CLAW 2 X-4032-539-2 COVER ASSY, TOP 3 4-391-825-01 RIVET, NYLON 4 *4-043-690-01 BRACKET, MAIN 5 *A-1297-469-A A BOARD, COMPLETE		1 4-847-802-11 SCREW (OS), CASE, CLAW 2 A-1005-294-A COVER COMPLETE ASSY, TOP 3 4-391-825-01 RIVET, NYLON 4 *4-043-690-01 BRACKET, MAIN 5 *A-1297-469-A A BOARD, COMPLETE	

SPECIFICATIONS (PVM-1453MD)

Video signal

Color system Resolution

PAL. NTSC

600 TV lines 0 dB - +6.0 dBAperture correction

Frequency response

LINE 9.0 MHz (-3 dB) RGB 10.0 MHz (-3 dB)

Synchronization

AFC time constant 1.0 msec.

Picture performance

Overscan

20% overscan of CRT effective

screen area

Normal scan

7% overscan of CRT effective screen

area

Underscan

5% underscan of CRT effective

screen area

Linearity

Horizontal: Less than 4% (typical) Vertical: Less than 4% (typical)

Convergence

Central area 0.6 mm (typical) Peripheral area 0.8 mm (typical)

Raster size stability

H 1.0%, V 1.5%

High voltage regulation

3.5%

CRT

EBU phosphor

Color temperature

6500K/5600K/USER (3200K -10000K, factory setting is 6500K)

Inputs

Y/C IN

4-pin mini DIN connector See the pin assignment on the

page 3.

VIDEO IN

BNC connector 1 Vp-p ±6 dB, sync

negative

AUDIO IN

phono jack, -5 dBu, more than 47k

ohms

R/R-Y IN, G/Y IN, B/B-Y IN

BNC connector 0.7 Vp-p ±6 dB

R, G, B channels Sync on green

1.0 Vp-p Sync negative, 75 ohms

terminated

R-Y, B-Y channels

0.7 Vp-p ±6 dB

Y channel

1.0 Vp-p ±6 dB

(Standard color bar signal of 75%

chrominance)

EXT SYNC IN

BNC connector composite sync

4 Vp-p ±6 dB, negative

Outputs

Y/C OUT

4-pin mini DIN connector, 75 ohms

terminated

VIDEO OUT

BNC connector, 75 ohms terminated

AUDIO OUT

phono jack

R/R-Y OUT, G/Y OUT, B/B-Y OUT

BNC connector, 75 ohms terminated BNC connector, 75 ohms terminated

EXT SYNC OUT DC OUT

5 V/1 A

Speaker output

Output level 0.8 W

Remote input

REMOTE 1

8-pin mini DIN

See the pin assignment on the

page 4.

RS-232C

9-pin D-sub

See the pin assignment on the

page 4.

General

Power requirements

100 - 240 V AC, 50/60 Hz

0.9 - 0.4A

Operating temperature range

0 - 35°C

Storage temperature range

−10 − +40°C

Humidity

0 - 90%

Dimensions

Approx. $346 \times 340 \times 411.5 \text{ mm}$

(w/h/d)

 $(13^5/8 \times 13^1/2 \times 16^1/4 \text{ inches})$

not incl. projecting parts and controls

Mass

Approx. 16.7 kg (36 lb 14 oz)

Accessory supplied

AC power cord (1) AC plug holder (1)

Splash proof covers (2) Control panel cover (1)

Panel hinges (2)

Remote Control Connector 8-pin mini DIN (1) Instructions for use (1)

Interface Manual for Programmers (1)

Quick Reference Card (1)

Double-sided Adhesive Tapes (4) Sales Companies Guide (1)

0 dBu = 0.775 Vr.m.s.

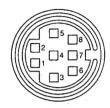
Pin assignment

Y/C IN connector (4-pin mini DIN)



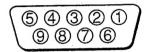
Pin No.	Signal	Description
1	Y-input	1 Vp-p, sync negative, 75 ohms
2	CHROMA sub- carrier-input	300 mVp-p, burst Delay time between Y and C: within 0±100 nsec., 75 ohms
3	GND for Y-input	GND
4	GND for CHROMA-input	GND

REMOTE 1 connector (8-pin mini DIN)



Pin No.	Signal
1	REMOTE ON/OFF
2	LINE A
3	GND
4	LINE B
5	TALLY
6	OVER SCAN
7	RGB A
8	RGB B

RS-232C connector (9-pin D-sub)



Pin No.	Signal	
1	_	
2	RX	
3	TX	
4		
5	GND	
6	—	
7	RTS	
8	CTS	
9		

Design and specifications are subject to change without notice.

(CAUTION)

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

WARNING!!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.

THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK A ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL TO SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL

COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS

SUSPECTED.

ATTENTION!!

APRES AVOIR DECONNECTE LE CAP DE L'ANODE, COURT-CIRCUITER L'ANODE DU TUBE CATHODIQUE ET CELUI DE L'ANODE DU CAP AU CHASSIS METALLIQUE DE L'APPAREIL, OU AU COUCHE DE CARBONE PEINTE SUR LE TUBE CATHODIQUE OU AU BILNDAGE DU TUBE CATHODIQUE.

ATTENTION!!

AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHÁSSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÉ LORS DE TOUT DÉPANNAGE.

LE CHÁSSIS DE CE RÉCEPTEUR EST DIRECTEMENT RACCORDÉ À L'ALIMENTATION SECTEUR.

ATTENTION AUX COMPOSANTS RELATIFS À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÈS PAR UNE TRAME ET PAR UNE MARQUE À SUR LES SCHÉMAS DE PRINCIPE, LES VUES EXPLOSÉES ET LES LISTES DE PIECES SONT D'UNE IMPORTANCE CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÉCE EST INDIQUÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY. LES RÉGLAGES DE CIRCUIT DONT L'IMPORTANCE EST CRITIQUE POUR LA SÉCURITÉ DU PRÉSENT MANUEL. SUIVRE CES PROCÉDURES LORS DE CHAQUE REMPLACEMENT DE COMPOSANTS CRITIQUES, OU LORSQU'UN MAUVAIS FONCTIONNEMENT EST SUSPECTÉ.

SAFETY CHECK-OUT (US Model only)

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

- Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
- Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
- Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.
- Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
- Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
- Check the line cords for cracks and abrasion.
 Recommend the replacement of any such line cord to the customer.
- Check the B+ and HV to see if they are at the values specified. Make sure your instruments are accurate; be suspicious of your HV meter if sets always have low HV.
- Check the metal trim, metallized knobs, screws, and all other exposed metal parts for AC leakage.
 Check leakage as described below.

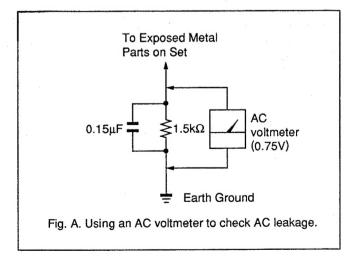
LEAKAGE TEST

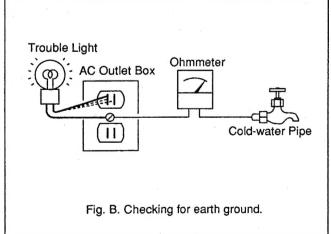
The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5mA (500 microampers). Leakage current can be measured by any one of three methods.

- A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufactures' instructions to use these instruments.
- A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
- 3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

HOW TO FIND A GOOD EARTH GROUND

A cold-water pipe is guaranteed earth ground; the cover-plate retaining screw on most AC outlet boxes is also at earth ground. If the retaining screw is to be used as your earth-ground, verify that it is at ground by measuring the resistance between it and a cold-water pipe with an ohmmeter. The reading should be zero ohms. If a cold-water pipe is not accessible, connect a 60-100 watts trouble light (not a neon lamp) between the hot side of the receptacle and the retaining screw. Try both slots, if necessary, to locate the hot side of the line, the lamp should light at normal brilliance if the screw is at ground potential. (See Fig. B)





PVM-1353MD/1453MD

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SECTION 1 GENERAL

1-1. GENERAL OF PVM-1353MD

Features

The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remain as in the manual.

PVM-1353MD

Picture

HR (High Resolution) Trinitron picture tube

HR Trinitron tube provides a high resolution picture. Horizontal resolution is more than 600 TV lines at the center of the picture.

Comb filter

When NTSC video signals are received, a comb filter activates to increase the resolution, resulting in fine picture detail without color spill or color noise.

Beam current feedback circuit

The built-in beam current feedback circuit assures stable white balance.

Inputs

Two color systems available

The monitor can display PAL, and NTSC signals. The appropriate color system is selected automatically.

Analog RGB/component input connectors

Analog RGB or component (Y, R-Y and B-Y) signals from video equipment can be input through these connectors. Press the RGB/COMPONENT A/B select button on the front panel and select RGB or component signals from the on-screen menu.

Y/C input connector (S input connector)

The video signal, split into the chrominance signal (C) and the luminance signal (Y), can be input through this connector, eliminating the interference between the two signals, which tends to occur in a composite video signal, assuring video quality.

External sync input connectors

When the external RGB or component signal is input and sync signal is set to external in the on-screen menu, the monitor can be operated on the sync signal supplied from an external sync generator.

Automatic termination (only terminals with the 4 -- mark)

The BNC input connectors on the rear panel are terminated at 75 ohms inside, when no cable is connected to the loop-through output connectors. When a cable is connected to an output connector, the 75-ohm termination is automatically released.

Functions

On-screen menus

You can set color temperature, CHROMA SET UP, and other settings by using the on-screen menus.

Overscan mode

The display size is enlarged by approximately 20% and the center part of the screen is easier to watch.

Underscan mode

The signal normally scanned outside of the screen can be monitored in the underscan mode.

Note

When the monitor is in the underscan mode, the dark RGB scanning lines may appear on the top edge of the screen. These are caused by an internal test signal, rather than the input signal.

Split function

The display splits into two parts (upper and lower): The upper part of the screen monitors the signal fed through the RGB/COMPONENT A input connectors and lower part of the screen monitors the signal fed through the RGB/COMPONENT B input connectors. You can compare the two screens.

Caption vision (Closed Caption) decoder

When a signal with Caption Vision is input, the caption is superimposed on the screen. You can select ON or OFF and set the caption type on the on-screen menu.

Auto/manual degaussing

Degaussing of the screen can be performed automatically when the power is turned on, or manually by pressing the DEGAUSS button.

Five menu languages

You can select the language used for on-screen menus from the five languages.

Splash proof cover(s) and control panel cover

Splash proof covers that protect the ventilation holes from splashes (of medicines, etc.) and a control panel cover that protects the control buttons on the front panel from undesired touching are supplied.

Quick Reference Card

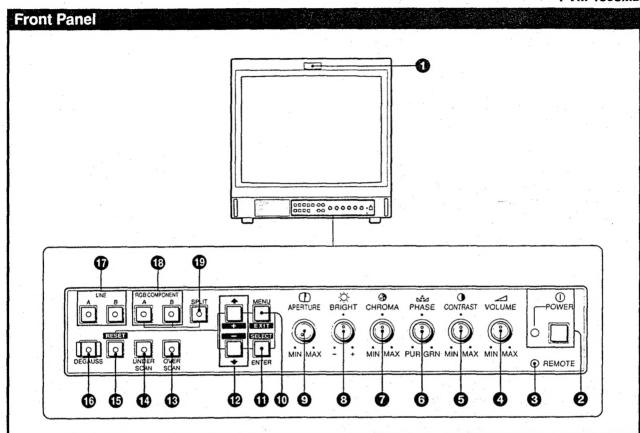
The Quick Reference Card is supplied to help you understand the menu configuration and operating method. You can attach the supplied double-sided adhesive tapes on the rear of the card.

EIA standard 19-inch rack mounting

By using an MB-502B (for PVM-1353MD) or SLR-103 (for PVM-1953MD) Mounting Bracket (not supplied), the monitor can be mounted in an EIA standard 19-inch rack. For details on mounting, see the instruction manual of the mounting bracket kit.

Location and Function of Parts and Controls

PVM-1353MD



1 Tally indicator

This indicator lights up when the video camera connected to this monitor is selected, indicating that the picture is being recorded. The tally control connection is needed.

For the pin assignment, see "Specifications" on page 14.

2 ① POWER switch and indicator

Depress to turn the monitor on. The indicator will light up in green. To turn the power off, press this again.

3 REMOTE indicator

This indicator lights up in the conditions below:

- When PRESET is set to ON in the menu.
- When REMOTE (RS-232C) is set to REMOTE ONLY or REMOTE & LOCAL in the menu, or
- When REMOTE ON is set via the REMOTE 1 terminal.

4 ∠ VOLUME control

Turn this control clockwise or counterclockwise to obtain the desired volume.

6 O CONTRAST control

Turn clockwise to make the contrast stronger and counterclockwise to make it weaker.

6 № PHASE control

This control is effective only for the NTSC color system. Turn clockwise to make the skin tones greenish

4 and counterclockwise to make them purplish.

7 3 CHROMA (chrominance) control

Turn clockwise to make the color intensity stronger and counterclockwise to make it weaker.

8 DRIGHT (brightness) control

Turn clockwise for more brightness and counterclockwise for less.

APERTURE control

Turn clockwise for more sharpness and counterclockwise for less.

When the control is set to MIN, the picture becomes flat without need for corrections.

Note

The APERTURE, CHROMA, PHASE control settings have no effect on the pictures of RGB signals.

MENU (EXIT) button

Press to make the menu appear.
Press to return to the previous screen in the menu.

© ENTER (SELECT) button

Press to decide a selected item in the menu.

② ↑ (+)/ ↓ (-) buttons

Press to move the cursor (>) or adjust selected value in the menus.

13 OVERSCAN button

Press (light on) for overscanning. The display size is extended by approximately 20% so that the center of screen is easier to watch. By pressing the button again, the display returns to the normal size (light off).

W UNDERSCAN button

Press (light on) for underscanning. The display size is reduced by approximately 5% so that four corners of the raster are visible. By pressing the button again, the display returns to the normal size (light off).

® RESET button

During menu adjustments, press to reset the setting in the menu.

16 DEGAUSS button

Press this button momentarily. The screen will be demagnetized. Wait for 10 minutes or more before activating this button again.

Note

The picture rolls vertically while the screen is being demagnetized.

1 LINE A/B select buttons

Press to select a signal (light on).

A: Press to monitor the signal fed through the LINE A input connectors.

B: Press to monitor the signal fed through the LINE B input connectors.

® RGB/COMPONENT A/B select buttons

Press to select a signal (light on).

A: Press to monitor the signal fed through the RGB/COMPONENT A input connectors.

B: Press to monitor the signal fed through the RGB/COMPONENT B input connectors.

SPLIT button

When you select RGB signals fed through the RGB/COMPONENT A and RGB/COMPONENT B input connectors, press this button (light on) to split the display into two parts (upper and lower), and monitor the both RGB signals simultaneously.

Note

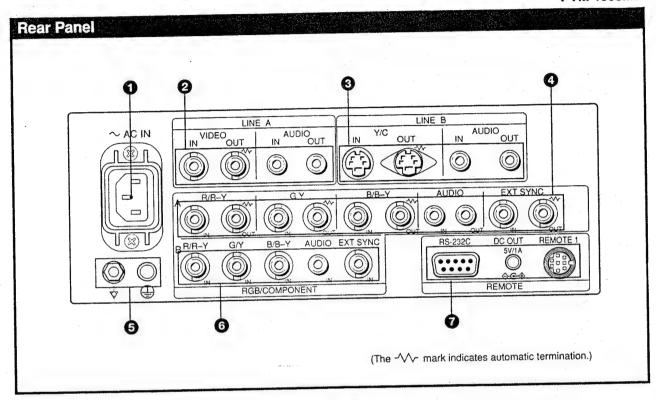
Make sure the signals fed through the RGB/COMPONENT A and RGB/COMPONENT B input connectors are synchronized.

Location and Function of Parts and Controls

Taglikakingan sempai makan yangkakan ang pama makankingan nikilikakisis at seminan sa ter

PVM-1353MD

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AC IN socket

Connect the supplied AC power cord to this socket.

2 LINE A connectors

Line input connectors for the composite video and audio signals and their loop-through output connectors. To monitor the input signal fed through these connectors, press LINE A select button (light on) on the front panel.

VIDEO IN (BNC)

Connect to the video output connector of a video equipment, such as a VTR or a color video camera. For a loop-through connection, connect to the video output connector of another monitor.

VIDEO OUT (BNC)

Loop-through output of the VIDEO IN connector. Connect to the video input connector for a VTR or another monitor.

When the cable is connected to this connector, the 75-ohms termination of the input is automatically released, and the signal input to the VIDEO IN connector is output from this connector.

AUDIO IN (phono jack)

Connect to the audio output connector of a VTR or to a microphone through a suitable microphone amplifier. For a loop-through connection, connect to the audio output connector of another monitor.

AUDIO OUT (phono jack)

Loop-through output of the AUDIO IN connector. Connect to the audio input connector of a VTR or another monitor.

1 LINE B connectors

Separated Y/C input connectors, audio input connectors, and corresponding loop-through output connectors.

To monitor the input signal fed through these connectors, press LINE B select button (light on) on the front panel.

Y/C IN (4-pin mini DIN)

Connect to the Y/C separate output connector of a VTR, video camera or other video equipment.

Y/C OUT (4-pin mini DIN)

Loop-through output of the Y/C IN connector. Connect to the Y/C separate input connector of a VTR or another monitor.

When the cable is connected to this connector, the 75-ohms termination of the input is automatically released, and the signal input to the Y/C IN connector is output from this connector.

AUDIO IN (phono jack)

Connect to the audio output connector of a VTR or to a microphone through a suitable microphone amplifier. For a loop-through connection, connect to the audio output connector of another monitor.

AUDIO OUT (phono jack)

Loop-through output of the AUDIO IN connector. Connect to the audio input connector of a VTR or another monitor.

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4 RGB/COMPONENT A connectors

RGB signal or component signal input connectors and their loop-through output connectors. To monitor the input signal fed through these connectors, press the RGB/COMPONENT A select button (light on) on the front panel. Then select one out of four items in the RGB A SYSTEM menu to set the RGB or COMP (component) signal and the INT SYNC (internal sync) or EXT SYNC (external sync) signal.

For the operation through the menus, see pages 8 to 10.

R/R-Y IN, G/Y IN, B/B-Y IN (BNC)

When "RGB-INT SYNC" or "COMP-INT SYNC" is selected in the RGB A SYSTEM menu, the monitor operates on the sync signal from the G/Y channel.

To monitor the RGB signal

Connect to the analog RGB signal output connectors of a video camera.

To monitor the component signal

Connect to the R-Y/Y/B-Y component signal output connectors of a Sony Betacam SP^{TM} camcorder.

R/R-Y OUT, G/Y OUT, B/B-Y OUT (BNC)

Loop-through outputs of the R/R-Y IN, G/Y IN, B/B-Y IN connectors.

When the cables are connected to these connectors, the 75-ohms termination of the inputs is automatically released, and the signal inputs to the R/R-Y IN, G/Y IN, B/B-Y IN connectors are output from these connectors.

To output the analog RGB signal

Connect to the analog RGB signal input connectors of a video printer or another monitor.

To output the component signal

Connect to the R-Y/Y/B-Y component signal input connectors of a Sony Betacam SP VTR.

AUDIO IN (phono jack)

Connect to the audio output connector of video equipment when the analog RGB or component signal is input.

AUDIO OUT (phono jack)

Loop-through outputs of the AUDIO IN connector.

EXT SYNC (external sync) IN (BNC)

When this monitor operates on an external sync signal, connect the signal from a sync generator to this connector.

To use the sync signal fed through this connector, select "RGB-EXT SYNC" or "COMP-EXT SYNC" in the RGB A SYSTEM menu.

EXT SYNC (external sync) OUT (BNC)

Loop-through output of the EXT SYNC IN connector. Connect to the external sync input connector of video equipment to be synchronized with this monitor. When the cable is connected to this connector, the 75-ohms termination of the input is released, and the signal input to the EXT SYNC IN connector is output from this connector.

⑤ Ground (♦/♠) terminal Connect a GND cable.

6 RGB/COMPONENT B connectors

RGB signal or component signal input connectors. To monitor the input signal fed through these connectors, press the RGB/COMPONENT B select button (light on) on the front panel.

Then select one out of four items in the RGB B SYSTEM menu to set the RGB or COMP (component) signal and the INT SYNC (internal sync) or EXT SYNC (external sync) signal.

For the operation through the menus, see pages 8 to 10.

R/R-Y IN, G/Y IN, B/B-Y IN (BNC)

When "RGB-INT SYNC" or "COMP-INT SYNC" is selected in the RGB B SYSTEM menu, the monitor operates on the sync signal from the G/Y channel.

To monitor the RGB signal

Connect to the analog RGB signal output connectors of a video camera.

To monitor the component signal

Connect to the R-Y/Y/B-Y component signal output connectors of a Sony Betacam SP camcorder.

AUDIO IN (phono jack)

Connect to the audio output connector of video equipment when the analog RGB or component signal is input.

EXT SYNC (external sync) IN (BNC)

When this monitor operates on an external sync signal, connect the signal from a sync generator to this connector.

To use the sync signal fed through this connector, select "RGB -EXT SYNC" or "COMP-EXT SYNC" in the RGB B SYSTEM menu.

REMOTE connectors RS-232C (D-sub 9-pin)

Connect to the RS-232C control connector of other equipment. You can operate the monitor with the control command from the equipment. For the details, see the supplied Interface Manual for Programmers.

REMOTE 1 (8-pin mini DIN)

Connect to the tally output connector of a control console, effects, etc. The tally indicator on the front panel will be turned on and off by the connected equipment.

You can also connect a remote controller using this connector.

For the pin assignments of these connectors, see "Specifications" on page 2.

DC OUT 5V/1A connector

You can use this connector as a power source for the other equipment. DC 5V/1A is output.

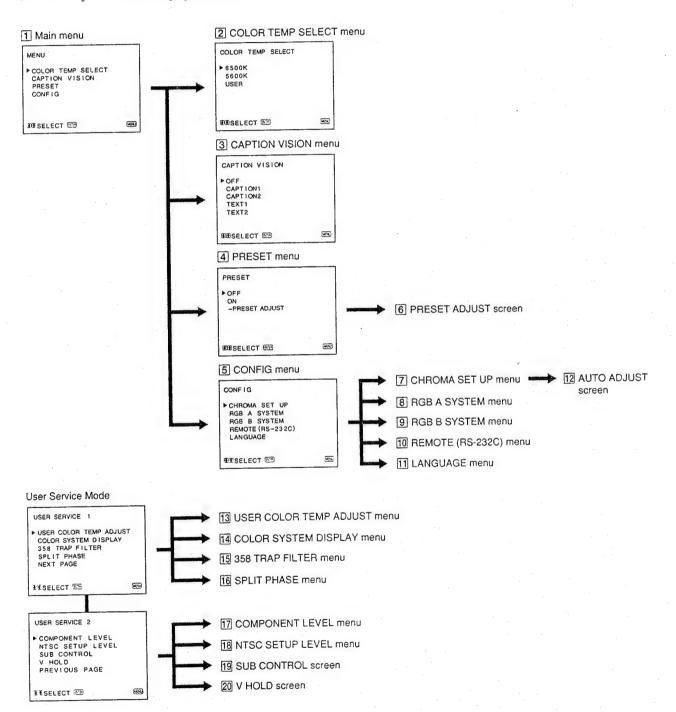
Using On-Screen Menus

PVM-1353MD

Menu Configuration

The flow chart shows the different levels of on-screen menus that you can use to make various adjustments and settings.

For details of each menu, see pages 9 and 10.

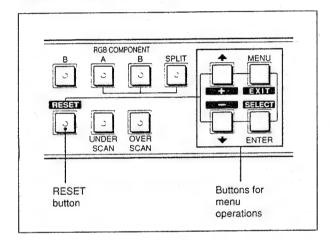




Operating through Menus

There are five buttons for menu operations on the front panel of the monitor. To display the main menu, first press MENU (EXIT). The buttons you can use appear at the bottom of the menu screen.

Functions of the buttons



Button	To select menu item	To adjust selected menu item	
MENU return to the previous menu.		return to the previous menu.	
ENTER SELECT	decide a selected item.	select an item.	
move the cursor (►) upwards.		increase selected value.	
Frank.	move the cursor (►) downwards.	decrease selected value.	
RESET		reset current adjustment value to the factory setting.	

(The above items in white type correspond to the marks in the menu.)

The Contents of Menu Items

The following sentences show the details of each menu items.

[] indicates the factory setting position.

1 Main menu

Select an item and press the ENTER (SELECT) button to go to the following menu.

2 COLOR TEMP SELECT menu

Select the color temperature from among 6500K, 5600K and USER. USER is set to 6500K in the factory setting. You can adjust or change the color temperature in USER mode (a measuring instrument is needed).

16500K1

Note

The color temperature of the USER mode can be adjusted in the range from 3200K to 10000K. You can adjust the color temperature of the USER mode in the USER COLOR TEMP ADJUST menu (13) of the user service mode.

For the details, see "USER COLOR TEMP ADJUST menu (13)" on page 10.

3 CAPTION VISION menu

To display closed captions, select ON and the type of caption you would like.

[OFF]

4 PRESET menu

You can preset each control to a desired level and set it. If you set PRESET to ON, the REMOTE indicator lights up and the controls on the front panel do not work. The monitor operates with the internal memory settings. For adjustment, select the PRESET ADJUST screen.

[OFF]

5 CONFIG menu

Select an item for adjustment of the monitor.

6 PRESET ADJUST screen

Adjust CONTRAST, BRIGHT, CHROMA, PHASE, VOLUME, APERTURE in the PRESET menu.

7 CHROMA SET UP menu

Set to ON to adjust the internal decoder for CHROMA and PHASE (NTSC signal only) after AUTO ADJUST screen (12).

[OFF]

8 RGB A SYSTEM menu

To monitor the signal fed through the RGB/ COMPONENT A connectors, set the RGB or COMP (component) signal and the INT SYNC (internal sync) or EXT SYNC (external sync) signal in this menu. [RGB-INT SYNC]

Using On-Screen Menus

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9 RGB B SYSTEM menu

To monitor the signal fed through the RGB/ COMPONENT B connectors, set the RGB or COMP (component) signal and the INT SYNC (internal sync) or EXT SYNC (external sync) signal in this menu. [RGB-INT SYNC]

10 REMOTE (RS-232C) menu

Select one out of following three modes.

REMOTE OFF:

You can adjust settings and controls by the buttons and controls on the front panel.

RS-232C connector does not function.

REMOTE ONLY:

You can adjust settings and controls through the RS-232C connector.

Buttons and controls on the front panel, except the menu operation ones, do not function.

REMOTE & LOCAL:

You can adjust settings and controls both through the RS-232C connector and the front panel buttons. Controls on the front panel do not function.

[REMOTE OFF]

11 LANGUAGE menu

You can select the language used for on-screen menus from the following five languages (English, German, French, Italian, Spanish).

[ENGLISH]

12 AUTO ADJUST screen

Select the color bar signal (full, SMPTE, EIA) and press the ENTER (SELECT) button to start automatic adjustment for CHROMA and PHASE. For these adjustments to be valid, you must select ON in CHROMA SET UP menu (7).

User Service Mode

The user service mode is useful when adjusting the settings and controls except for the above.

To enter the user service mode, press and hold the MENU (EXIT) button until the following USER SERVICE 1

To move to the second page of the mode, select "NEXT PAGE" and to return to the first page of the menu, select "PREVIOUS PAGE".

USER SERVICE 1 USER COLOR TEMP ADJUST COLOR SYSTEM DISPLAY 358 TRAP FILTER SPLIT PHASE NEXT PAGE E SELECT E WW.

USER SERVICE 2 COMPONENT LEVEL
NTSC SETUP LEVEL
SUB CONTROL
V HOLD
PREVIOUS PAGE SELECT SE

13 USER COLOR TEMP ADJUST menu

The value of adjustment in this menu works only when "USER" is selected in the COLOR TEMP SELECT menu (2).

ADJUST GAIN:

Adjusts the color balance (gain) of the USER mode. ADJUST BIAS:

Adjusts the color balance (bias) of the USER mode. COLOR TEMP RANGE:

When you adjust the color temperature in the USER mode, select a color temperature range before adjusting ADJUST GAIN and ADJUST BIAS. If the adjusted color temperature is between 3200K and 5000K, select "3200K-5000K." If the adjusted color temperature is between 5000K and 10000K, select [5000K-10000K] "5000K-10000K."

14 COLOR SYSTEM DISPLAY menu

Select the color system display mode. In AUTO, the kind of color system being used appears on the screen each time you change the signal input.

15 358 TRAP FILTER menu

Color spill or color noise may be eliminated if you select ON (NTSC signal only). Normally set it to OFF. [OFF]

16 SPLIT PHASE menu

When the SPLIT function is activated, if the lower side picture (the signal fed through the RGB/COMPONENT B input connectors) has some discrepancy of location with the upper side picture, adjust the SPLIT PHASE

Each time you press the 1(+) button, the lower side picture moves left.

Note

When the adjustment is made in the menu, the skew error will occur on the top of the lower side picture.

17 COMPONENT LEVEL menu

Select the component level from among three modes. N10/SMPTE: for 100/0/100/0 signal for 100/7.5/75/7.5 signal

BETA 7.5: BETA 0:

[BETA 7.5] for 100/0/75/0 signal

18 NTSC SETUP LEVEL menu

Select the NTSC setup level from two modes. The 7.5 setup level is mainly used in north America. The 0 setup level is mainly used in Japan.

19 SUB CONTROL screen

You can finely adjust the controls on the front panel. CONTRAST, PHASE, CHROMA and BRIGHT controls have clicks at the center of their adjustment range. You can adjust the setting of the click position with this feature.

20 V HOLD screen

Adjust the vertical hold if the picture rolls vertically.

Note

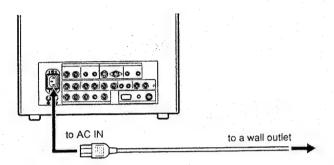
If the rolling of the picture prevents you from watching the screen, select an input that has nothing connected.

Power Sources

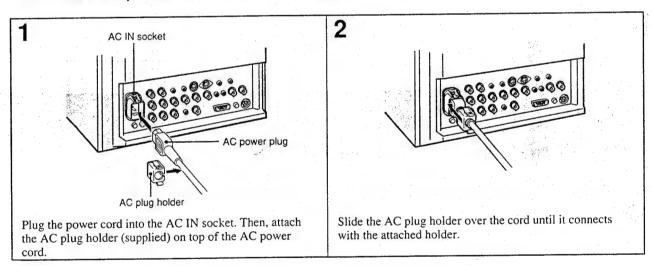
PVM-1353MD

House Current

Connect the supplied AC power cord to the AC IN socket on the rear panel and to a wall outlet.



To connect an AC power cord securely with the AC plug holder



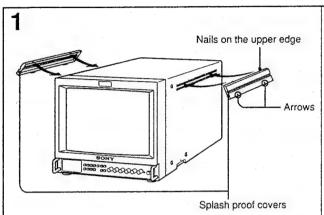
To remove the AC power cord

Pull out AC plug holder by squeezing the up and down sides.

Attaching the Splash Proof Covers

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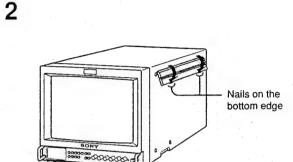
In order to protect the ventilation holes from splashes (of medicines, etc.), attach the splash proof covers (supplied) as shown below.



Making sure the arrows on the cover are facing down, hook the nails on the upper edge into the ventilation holes.

Note

Attach the splash proof covers to all them ventilation holes.

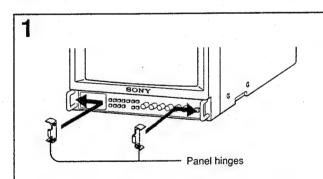


Push up the nails on the bottom edge and fit the cover into the lowest ventilation holes.

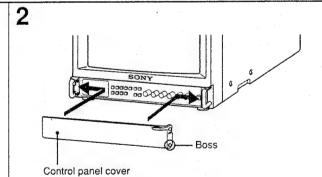
Attach the both covers to the left and right sides.

Attaching the Control Panel Cover

In order to protect the control buttons on the front panel from undesired touching, attach the supplied control panel cover.



Attach the panel hinges to the left and right grips from the inner side.



Fit the bosses on the both sides of the control panel cover into the lower holes of the panel hinges with bending the control panel cover a little.

Features

PVM-1453MD

Picture

HR (High Resolution) Trinitron picture tube

HR Trinitron tube provides a high resolution picture. Horizontal resolution is more than 600 TV lines at the center of the picture.

Comb filter

When NTSC video signals are received, a comb filter activates to increase the resolution, resulting in fine picture detail without color spill or color noise.

Beam current feedback circuit

The built-in beam current feedback circuit assures stable white balance.

Inputs

Two color systems available

The monitor can display PAL, and NTSC signals. The appropriate color system is selected automatically.

Analog RGB/component input connectors

Analog RGB or component (Y. R-Y and B-Y) signals from video equipment can be input through these connectors. Press the RGB/COMPONENT A/B select button on the front panel and select RGB or component signals from the on-screen menu.

Y/C input connector (S input connector)

The video signal, split into the chrominance signal (C) and the luminance signal (Y), can be input through this connector, eliminating the interference between the two signals, which tends to occur in a composite video signal, assuring video quality.

External sync input connectors

When the external RGB or component signal is input and sync signal is set to external in the on-screen menu, the monitor can be operated on the sync signal supplied from an external sync generator.

Automatic termination (only terminals with the -// mark)

The BNC input connectors on the rear panel are terminated at 75 ohms inside, when no cable is connected to the loop-through output connectors. When a cable is connected to an output connector, the 75-ohm termination is automatically released.

Functions

On-screen menus

You can set color temperature, CHROMA SET UP, and other settings by using the on-screen menus.

Overscan mode

The display size is enlarged by approximately 20% and the center part of the screen is easier to watch.

Underscan mode

The signal normally scanned outside of the screen can be monitored in the underscan mode.

Note

When the monitor is in the underscan mode, the dark RGB scanning lines may appear on the top edge of the screen. These are caused by an internal test signal, rather than the input signal.

Split function

The display splits into two parts (upper and lower). The upper part of the screen monitors the signal fed through the RGB/COMPONENT A input connectors and lower part of the screen monitors the signal fed through the RGB/COMPONENT B input connectors. You can compare the two screens.

Auto/manual degaussing

Degaussing of the screen can be performed automatically when the power is turned on, or manually by pressing the DEGAUSS button.

Five menu languages

You can select the language used for on-screen menus from the five languages.

Splash proof cover(s) and control panel cover

Splash proof covers that protect the ventilation holes from splashes (of medicines, etc.) and a control panel cover that protects the control buttons on the front panel from undesired touching are supplied.

Quick Reference Card

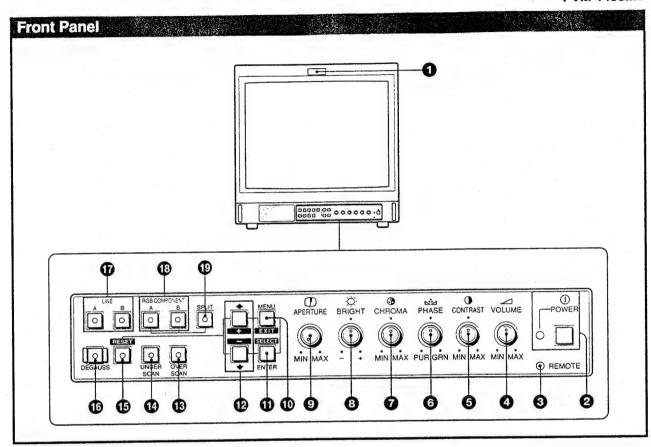
The Quick Reference Card is supplied to help you understand the menu configuration and operating method. You can attach the supplied double-sided adhesive tapes on the rear of the card.

EIA standard 19-inch rack mounting

By using an MB-502B (for PVM-1453MD) or SLR-103 (for PVM-2053MD) Mounting Bracket (not supplied), the monitor can be mounted in an EIA standard 19-inch rack. For details on mounting, see the instruction manual of the mounting bracket kit.

Location and Function of Parts and Controls

PVM-1453MD



1 Tally indicator

This indicator lights up when the video camera connected to this monitor is selected, indicating that the picture is being recorded. The tally control connection is needed. For the pin assignment, see "Specifications" on page 16.

2 ① POWER switch and indicator

Depress to turn the monitor on. The indicator will light up in green. To turn the power off, press this again.

3 REMOTE indicator

This indicator lights up in the conditions below:

- When PRESET is set to ON in the menu.
- When REMOTE (RS-232C) is set to REMOTE ONLY or REMOTE & LOCAL in the menu, or
- When REMOTE ON is set via the REMOTE 1 terminal.

■ VOLUME control

Turn this control clockwise or counterclockwise to obtain the desired volume.

6 O CONTRAST control

Turn clockwise to make the contrast stronger and counterclockwise to make it weaker.

6 № PHASE control

This control is effective only for the NTSC color system. Turn clockwise to make the skin tones greenish and counterclockwise to make them purplish.

7 3 CHROMA (chrominance) control

Turn clockwise to make the color intensity stronger and counterclockwise to make it weaker.

8 O BRIGHT (brightness) control

Turn clockwise for more brightness and counterclockwise for less.

APERTURE control

Turn clockwise for more sharpness and counterclockwise for less.

When the control is set to MIN, the picture becomes flat without need for corrections.

Note

The APERTURE, CHROMA, PHASE control settings have no effect on the pictures of RGB signals.

10 MENU (EXIT) button

Press to make the menu appear. Press to return to the previous screen in the menu.

1 ENTER (SELECT) button

Press to decide a selected item in the menu.

② ↑ (+)/ **↓** (−) buttons

Press to move the cursor (>) or adjust selected value in the menus.



Press (light on) for overscanning. The display size is extended by approximately 20% so that the center of screen is easier to watch. By pressing the button again, the display returns to the normal size (light off).

10 UNDERSCAN button

Press (light on) for underscanning. The display size is reduced by approximately 5% so that four corners of the raster are visible. By pressing the button again, the display returns to the normal size (light off).

® RESET button

During menu adjustments, press to reset the setting in the menu.

1 DEGAUSS button

Press this button momentarily. The screen will be demagnetized. Wait for 10 minutes or more before activating this button again.

Note

The picture rolls vertically while the screen is being demagnetized.

The LINE A/B select buttons

Press to select a signal (light on).

- A: Press to monitor the signal fed through the LINE A input connectors.
- B: Press to monitor the signal fed through the LINE B input connectors.

® RGB/COMPONENT A/B select buttons

Press to select a signal (light on).

- A: Press to monitor the signal fed through the RGB/ COMPONENT A input connectors.
- B: Press to monitor the signal fed through the RGB/ COMPONENT B input connectors.

1 SPLIT button

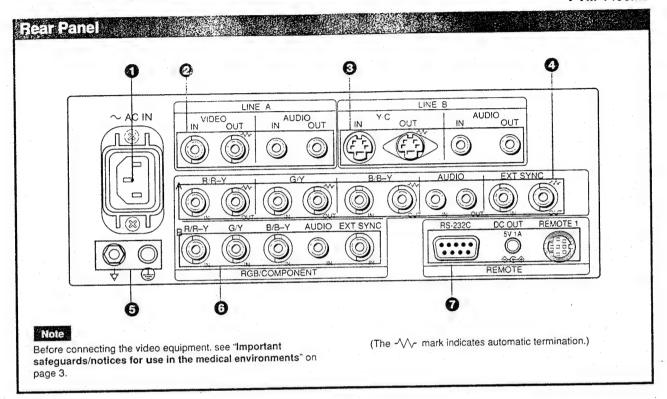
When you select RGB signals fed through the RGB/ COMPONENT A and RGB/COMPONENT B input connectors, press this button (light on) to split the display into two parts (upper and lower), and monitor the both RGB signals simultaneously.

Note

Make sure the signals fed through the RGB/ COMPONENT A and RGB/COMPONENT B input connectors are synchronized.

Location and Function of Parts and Controls

PVM-1453MD



O AC IN socket

Connect the supplied AC power cord to this socket.

2 LINE A connectors

Line input connectors for the composite video and audio signals and their loop-through output connectors. To monitor the input signal fed through these connectors, press LINE A select button (light on) on the front panel.

VIDEO IN (BNC)

Connect to the video output connector of a video equipment, such as a VTR or a color video camera. For a loop-through connection, connect to the video output connector of another monitor.

VIDEO OUT (BNC)

Loop-through output of the VIDEO IN connector. Connect to the video input connector for a VTR or another monitor.

When the cable is connected to this connector, the 75-ohms termination of the input is automatically released, and the signal input to the VIDEO IN connector is output from this connector.

AUDIO IN (phono jack)

Connect to the audio output connector of a VTR or to a microphone through a suitable microphone amplifier. For a loop-through connection, connect to the audio output connector of another monitor.

AUDIO OUT (phono jack)

Loop-through output of the AUDIO IN connector. Connect to the audio input connector of a VTR or another monitor.

1 LINE B connectors

Separated Y/C input connectors, audio input connectors, and corresponding loop-through output connectors.

To monitor the input signal fed through these connectors, press LINE B select button (light on) on the front panel.

Y/C IN (4-pin mini DIN)

Connect to the Y/C separate output connector of a VTR, video camera or other video equipment.

Y/C OUT (4-pin mini DIN)

Loop-through output of the Y/C IN connector. Connect to the Y/C separate input connector of a VTR or another monitor.

When the cable is connected to this connector, the 75-ohms termination of the input is automatically released, and the signal input to the Y/C IN connector is output from this connector.

AUDIO IN (phono jack)

Connect to the audio output connector of a VTR or to a microphone through a suitable microphone amplifier. For a loop-through connection, connect to the audio output connector of another monitor.

AUDIO OUT (phono jack)

Loop-through output of the AUDIO IN connector. Connect to the audio input connector of a VTR or another monitor.

A RGB/COMPONENT A connectors

RGB signal or component signal input connectors and their loop-through output connectors.

To monitor the input signal fed through these connectors, press the RGB/COMPONENT A select button (light on) on the front panel.

Then select one out of four items in the RGB A SYSTEM menu to set the RGB or COMP (component) signal and the INT SYNC (internal sync) or EXT SYNC (external sync) signal.

For the operation through the menus, see pages 10 to 12.

R/R-Y IN, G/Y IN, B/B-Y IN (BNC)

When "RGB-INT SYNC" or "COMP-INT SYNC" is selected in the RGB A SYSTEM menu, the monitor operates on the sync signal from the G/Y channel.

To monitor the RGB signal

Connect to the analog RGB signal output connectors of a video camera.

To monitor the component signal

Connect to the R-Y/Y/B-Y component signal output connectors of a Sony Betacam SPTM camcorder.

R/R-Y OUT, G/Y OUT, B/B-Y OUT (BNC)

Loop-through outputs of the R/R-Y IN, G/Y IN, B/B-Y IN connectors.

When the cables are connected to these connectors, the 75-ohms termination of the inputs is automatically released, and the signal inputs to the R/R-Y IN, G/Y IN, B/B-Y IN connectors are output from these connectors.

To output the analog RGB signal

Connect to the analog RGB signal input connectors of a video printer or another monitor.

To output the component signal

Connect to the R-Y/Y/B-Y component signal input connectors of a Sony Betacam SP VTR.

AUDIO IN (phono jack)

Connect to the audio output connector of video equipment when the analog RGB or component signal is input.

AUDIO OUT (phono jack)

Loop-through outputs of the AUDIO IN connector.

EXT SYNC (external sync) IN (BNC)

When this monitor operates on an external sync signal, connect the signal from a sync generator to this connector.

To use the sync signal fed through this connector, select "RGB-EXT SYNC" or "COMP-EXT SYNC" in the RGB A SYSTEM menu.

EXT SYNC (external sync) OUT (BNC)

Loop-through output of the EXT SYNC IN connector. Connect to the external sync input connector of video equipment to be synchronized with this monitor. When the cable is connected to this connector, the 75-ohms termination of the input is released, and the signal input to the EXT SYNC IN connector is output from this connector.

⑤ Ground (♦/♠) terminal Connect a GND cable.

6 RGB/COMPONENT B connectors

RGB signal or component signal input connectors. To monitor the input signal fed through these connectors, press the RGB/COMPONENT B select button (light on) on the front panel.

Then select one out of four items in the RGB B SYSTEM menu to set the RGB or COMP (component) signal and the INT SYNC (internal sync) or EXT SYNC (external sync) signal.

For the operation through the menus, see pages 10 to 12.

R/R-Y IN, G/Y IN, B/B-Y IN (BNC)

When "RGB-INT SYNC" or "COMP-INT SYNC" is selected in the RGB B SYSTEM menu, the monitor operates on the sync signal from the G/Y channel.

To monitor the RGB signal

Connect to the analog RGB signal output connectors of a video camera.

To monitor the component signal

Connect to the R-Y/Y/B-Y component signal output connectors of a Sony Betacam SP camcorder.

AUDIO IN (phono jack)

Connect to the audio output connector of video equipment when the analog RGB or component signal is input.

EXT SYNC (external sync) IN (BNC)

When this monitor operates on an external sync signal, connect the signal from a sync generator to this connector.

To use the sync signal fed through this connector, select "RGB -EXT SYNC" or "COMP-EXT SYNC" in the RGB B SYSTEM menu.

7 REMOTE connectors

RS-232C (D-sub 9-pin)

Connect to the RS-232C control connector of other equipment. You can operate the monitor with the control command from the equipment.

For the details, see the supplied Interface Manual for Programmers.

REMOTE 1 (8-pin mini DIN)

Connect to the tally output connector of a control console, effects, etc. The tally indicator on the front panel will be turned on and off by the connected equipment.

You can also connect a remote controller using this connector.

For the pin assignments of these connectors, see "Specifications" on page 4.

DC OUT 5V/1A connector

You can use this connector as a power source for the other equipment. DC 5V/1A is output.

Using On-Screen Menus

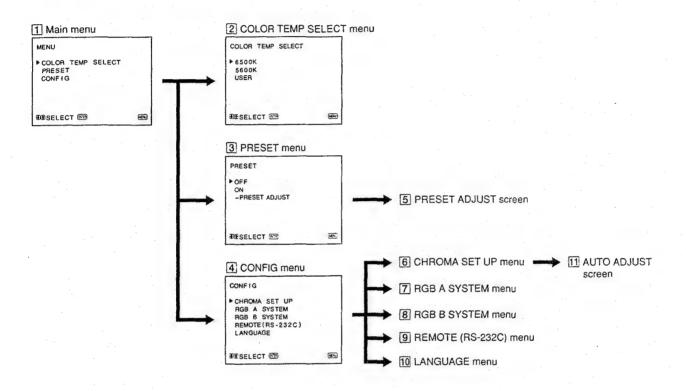
katingka, it bely alkalaha kamanda katan isa ata ni ita kalalahalaha ata alka na atan kalalaha kalalaha

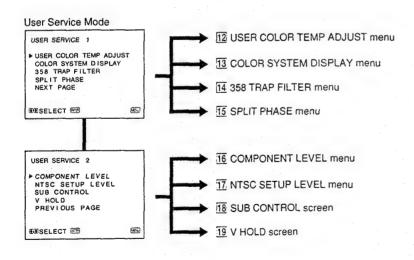
PVM-1453MD

Menu Configuration

The flow chart shows the different levels of on-screen menus that you can use to make various adjustments and settings.

For details of each menu, see pages 11 and 12.



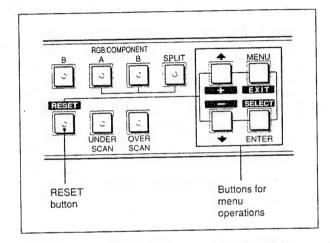




Operating through Menus

There are five buttons for menu operations on the front panel of the monitor. To display the main menu, first press MENU (EXIT). The buttons you can use appear at the bottom of the menu screen.

Functions of the buttons



Button	item menu item	
MENU EXIT	return to the previous menu.	return to the previous menu.
ENTER SELECT	decide a selected item.	select an item.
1	move the cursor (►) upwards.	increase selected value.
	move the cursor (►) downwards.	decrease selected value.
RESET		reset current adjustment value to the factory setting.

(The above items in white type correspond to the marks in the menu.)

The Contents of Menu Items

The following sentences show the details of each menu

[] indicates the factory setting position.

1 Main menu

Select an item and press the ENTER (SELECT) button to go to the following menu.

2 COLOR TEMP SELECT menu

Select the color temperature from among 6500K, 5600K and USER. USER is set to 6500K in the factory setting. You can adjust or change the color temperature in USER mode (a measuring instrument is needed).

[6500K]

Note

The color temperature of the USER mode can be adjusted in the range from 3200K to 10000K. You can adjust the color temperature of the USER mode in the USER COLOR TEMP ADJUST menu (12) of the user service mode.

For the details, see USER COLOR TEMP ADJUST menu (12) on page 12.

3 PRESET menu

You can preset each control to a desired level and set it. If you set PRESET to ON, the REMOTE indicator lights up and the controls on the front panel do not work. The monitor operates with the internal memory settings. For adjustment, select the PRESET ADJUST screen.

[OFF]

4 CONFIG menu

Select an item for adjustment of the monitor.

5 PRESET ADJUST screen

Adjust CONTRAST, BRIGHT, CHROMA, PHASE, VOLUME, APERTURE in the PRESET menu.

6 CHROMA SET UP menu

Set to ON to adjust the internal decoder for CHROMA and PHASE (NTSC signal only) after AUTO ADJUST screen (11).

OFF

7 RGB A SYSTEM menu

To monitor the signal fed through the RGB/COMPONENT A connectors, set the RGB or COMP (component) signal and the INT SYNC (internal sync) or EXT SYNC (external sync) signal in this menu.

[RGB-INT SYNC]

8 RGB B SYSTEM menu

To monitor the signal fed through the RGB/COMPONENT B connectors, set the RGB or COMP (component) signal and the INT SYNC (internal sync) or EXT SYNC (external sync) signal in this menu.

[RGB-INT SYNC]

Using On-Screen Menus

PVM-1453MD

9 REMOTE (RS-232C) menu

Select one out of following three modes.

REMOTE OFF:

You can adjust settings and controls by the buttons and controls on the front panel.

The RS-232C connector does not function.

REMOTE ONLY:

You can adjust settings and controls through the RS-232C connector.

Buttons and controls on the front panel, except the menu operation ones, do not functin.

REMOTE & LOCAL:

You can adjust settings and controls both through the RS-232C connector and the front panel buttons. Controls on the front panel do not function.

[REMOTE OFF]

10 LANGUAGE menu

You can select the language used for on-screen menus from the following five languages (English, German, French, Italian, Spanish). [ENGLISH]

11 AUTO ADJUST screen

Select the color bar signal (full, SMPTE, EIA) and press the ENTER (SELECT) button to start automatic adjustment for CHROMA and PHASE. For these adjustments to be valid, you must select ON in CHROMA SET UP menu (6).

User Service Mode

The user service mode is useful when adjusting the settings and controls except for the above.

To enter the user service mode, press and hold the MENU (EXIT) button until the following USER SERVICE 1 appears.

To move to the second page of the mode, select "NEXT PAGE" and to return to the first page, select "PREVIOUS PAGE".

ŒV.

USER SERVICE 1

➤ USER COLOR TEMP ADJUST COLOR SYSTEM DISPLAY 358 TRAP FILTER

358 TRAP FILTER SPLIT PHASE NEXT PAGE

DESELECT S

USER SERVICE 2

COMPONENT LEVEL
NTSC SETUP LEVEL
SUB CONTROL
V HOLD
PREVIOUS PAGE

GESELECT

NEW .

12 USER COLOR TEMP ADJUST menu

The value of adjustment in this menu works only when "USER" is selected in the COLOR TEMP SELECT menu (2).

ADJUST GAIN:

Adjusts the color balance (gain) of the USER mode. ADJUST BIAS:

Adjusts the color balance (bias) of the USER mode. COLOR TEMP RANGE:

When you adjust the color temperature in the USER mode, select a color temperature range before adjusting ADJUST GAIN and ADJUST BIAS. If the adjusted color temperature is between 3200K and 5000K, select "3200K-5000K." If the adjusted color temperature is between 5000K and 10000K, select "5000K-10000K." [5000K-10000K]

13 COLOR SYSTEM DISPLAY menu

Select the color system display mode. In AUTO, the kind of color system being used appears on the screen each time you change the signal input. [AUTO]

14 358 TRAP FILTER menu

Color spill or color noise may be eliminated if you select ON (NTSC signal only). Normally set it to OFF.

[OI

15 SPLIT PHASE menu

When the SPLIT function is activated, if the lower side picture (the signal fed through the RGB/COMPONENT B input connectors) has some discrepancy of location with the upper side picture, adjust the SPLIT PHASE menu.

Each time you press the \uparrow (+) button, the lower side picture moves left.

Note

When the adjustment is made in the menu, the skew error will occur on the top of the lower side picture.

16 COMPONENT LEVEL menu

Select the component level from among three modes. N10/SMPTE: for 100/0/100/0 signal

BETA 7.5: for 100/7.5/75/7.5 signal

DETA 7.5. 101 100/7.5/15/7.5 signal

BETA 0: for 100/0/75/0 signal [N10/SMPTE]

17 NTSC SETUP LEVEL menu

Select the NTSC setup level from two modes. The 7.5 setup level is mainly used in north America. The 0 setup level is mainly used in Japan. [0]

18 SUB CONTROL screen

You can finely adjust the controls on the front panel. CONTRAST, PHASE. CHROMA and BRIGHT controls have clicks at the center of their adjustment range. You can adjust the setting of the click position with this feature.

19 V HOLD screen

Adjust the vertical hold if the picture rolls vertically.

Note

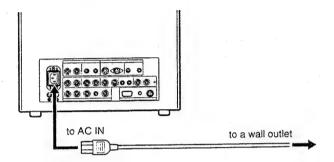
If the rolling of the picture prevents you from watching the screen, select an input that has nothing connected.

Power Sources

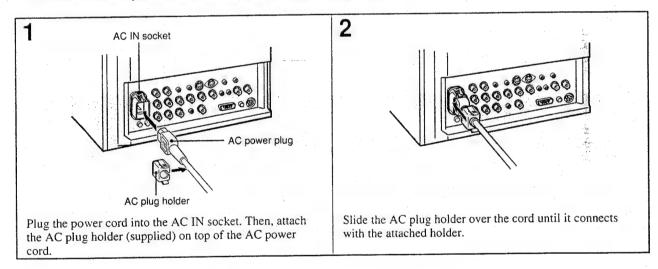
PVM-1453MD

House Current

Connect the supplied AC power cord to the AC IN socket on the rear panel and to a wall outlet.



To connect an AC power cord securely with the AC plug holder



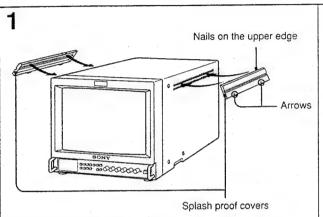
To remove the AC power cord

Pull out AC plug holder by squeezing the up and down sides.

Attaching the Splash Proof Covers

PVM-1453MD

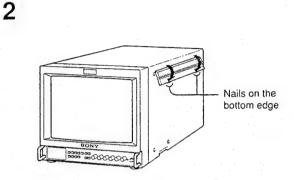
In order to protect the ventilation holes from splashes (of medicines, etc.), attach the splash proof covers (supplied) as shown below.



Making sure the arrows on the cover are facing down, hook the nails on the upper edge into the ventilation holes.

Note

Attach the splash proof covers to all them ventilation holes.

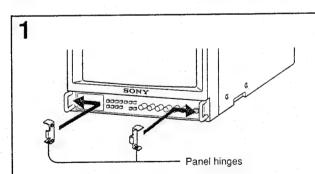


Push up the nails on the bottom edge and fit the cover into the lowest ventilation holes.

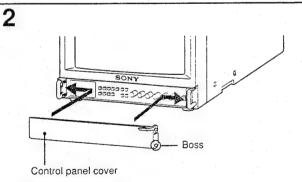
Attach the both covers to the left and right sides.

Attaching the Control Panel Cover

In order to protect the control buttons on the front panel from undesired touching, attach the supplied control panel cover.



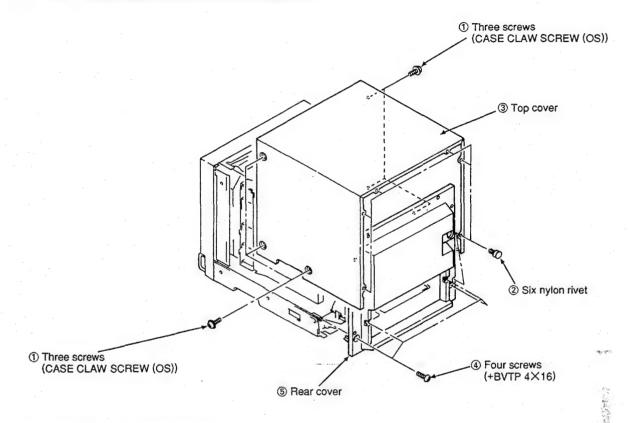
Attach the panel hinges to the left and right grips from the inner side.



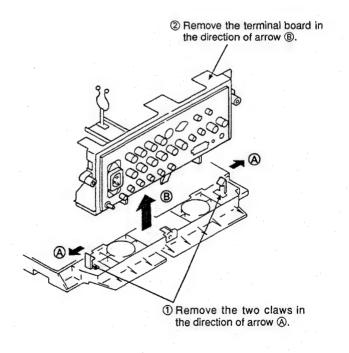
Fit the bosses on the both sides of the control panel cover into the lower holes of the panel hinges with bending the control panel cover a little.

SECTION 2 DISASSEMBLY

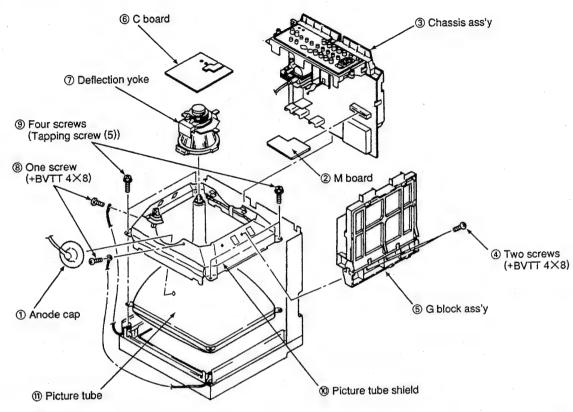
2-1. TOP COVER AND REAR COVER REMOVAL



2-2. TERMINAL BOARD REMOVAL



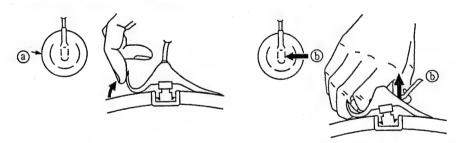
2-3. PICTURE TUBE REMOVAL



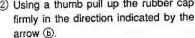
· REMOVAL OF ANODE:CAP

NOTE: Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon paint on the CRT, after removing the anode.

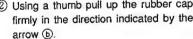
• REMOVING PROCEDURES



- direction indicated by arrow (a).
- ① Turn up one side of the rubber cap in the ② Using a thumb pull up the rubber cap

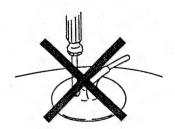


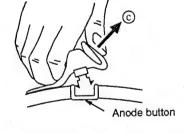
arrow (b).



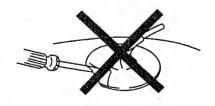


- 1 Don't hurt the surface of anode-caps with sharp shaped material!
- Don't press the rubber hardly not to hurt inside of anode-caps! -
 - A material fitting called as shatter-hook terminal is built in the rubber.
- 3 Don't turn the foot of rubber over hardly! The shatter-hook terminal will stick out or hurt the rubber.





3 When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling up it in the direction of the arrow ©.



SECTION 3 SET-UP ADJUSTMENTS

3-1. PREPARATIONS (1)

Service Mode

This set is provided with a switch for service on the front panel that can be used to make various adjustments. The operation method of this switch is explained in detail below.

1. ENTERING THE SERVICE MODE

Simultaneously press the [ENTER] key and the [DEGAUSS] key shown on the display of the menu.

2. SERVICE MODE DISPLAY

(1)	(5)	(4)	(3)	(6)
(2)				

Range of Sevice Mode Display

- (1) The service items are largely classified into 16 types displayed by titles.
- (2) The names of the service items or READ / WRITE guidance, etc., are displayed. The names are displayed to the left and the guidance to the right.
- (3) This is the serial number for each of the service items. 1-120.
- (4) This is the adjustment data for the servise items that are now stored in the RAM. Adjustments can be made by changing these values, but as long as nothing is written to the ROM the adjustment values will be erased by turning off the power or by reading, so please be careful.
- (5) When the adjustment data than is now displayed is identical with the data in the ROM, the cursor (▷) is displayed.
- (6) The present status is displayed.
 - [*]: Writing to the ROM. Make sure not to turn off the power while this display is on.
 - [?]: ROM reading error. In this case, an image is output with the standard adjustment data that the microcomputer itself possesses.
 - [¿]: Problem in the I2C bus.

3. FINISHING THE SERVICE MODE

Simultaneously press the [ENTER] key and the [DEGAUSS] key shown on the display of the menu.

4. EASY ON / OFF OF THE SERVICE MODE

If once entering the service mode after having turned on the power, easy ON / OFF is possible by once more pressing the A, B or C switch on the front panel (the LED lights) as long as the power is not turned off or as long as the service mode is not finished.

5. CHANGE OF POSITION OF THE SERVICE MODE DISPLAY

If the switch is continuously pressed when turning on in the above easy mode, the display position moves in the V direction. This method is used when the display is outside of the effective screen area.

6. CHANGE OF SERVICE ITEMS

The items are returned with the [MENU] key and forwarded with the [ENTER] key. When a key is continuously pressed, the operation will be repeated.

7. CHANGE OF SERVICE DATA

The service data is made larger with the $[\uparrow]$ key and smaller with the $[\downarrow]$ key. When continuously pressing the keys, the operation will be repeated.

8. READING OF SERVICE DATA

When reading data from the ROM to the RAM, press the RESET key once and check than the READ display is shown in the guidance, and then press the RESET key once again. The adjustment data that is written will return to its previous state, so please be careful.

9. WRITING OF SERVICE DATA

When writing data from the RAM to the ROM, press the [DEGAUSS] key once and check that the WRITE display is shown in the guidance, and then press the [DEGAUSS] key once again. Not only the displayed data will be written, but all data, so please be careful.

10. CARRYING OUT FACTORY RESETTING

In case the adjustment data has been destroyed for some reason, and you keep pressing the RESET key at the beginning of the above reading, the READ guidance will change to FACTORY RESET guidance in approximately 3 seconds so that the factory resetting can be carried out. By once again pressing the RESET key after this, resetting will be carried out ([*] will be displayed as status) and factory resetting will be executed. However, in case the data available at the time of shipment from the factory has been destroyed, or if the ROM has been replaced, etc., or if factory setting mentioned later on has been carried out, factory resetting is executed.

11. CARRYING OUT FACTORY SETTING

Make sure to make possible the above factory resetting by making a copy of the adjustment data when replacing the ROM. If you keep pressing the [DEGAUSS] key at the beginning of the above writing, the WRITE guidance will change into FACTORY RESET guidance after approximately 3 seconds. By once again pressing the [DEGAUSS] key after this, setting will be carried out ([*]will be dispalyed as status) and the data will be copied. By carrying out this operation, the selection items of the menu and the adjustment values will be reset to the standard conditions, so please be careful. If this operation is carried out once, it cannot be carried out again, but the FACTORY SET FLAG in the service mode can be set to 1.

PVM-1353MD/1453MD

ROM INITIAL WRITING VALUE OF SERVICE DATA

SERVICE MAP Ver 1.0MD (1 - 98)

2	No.	SERVICE ITEM		STD	No.	SERVICE ITEM		STE
3	1	NOR 50 DEF			61	USER C/T ORG		650
MOR GODEF HERQUENCY 150 64	2		VIDEO PHASE	118	62		BIAS <green></green>	512
VIDEO PHASE	3			179	63			352
	4	NOR 60 DEF	H FREQUENCY	150	64		GAIN <red></red>	726
NOR DEF	5		VIDEO PHASE	121	65		GAIN <green></green>	700
	6		V SIZE	177	66		GAIN <blue></blue>	520
PIN PHASE	7	NOR DEF	V CENTER	111	67	W/B	SUB CON	180
In	8		H SIZE	112	68		SUB BRIGHT	69
11	9		PIN PHASE	103	69	OTHER	OSD POSITION	110
12	10		PIN AMP	110	70		SPLIT PHASE	(
13	11		LOWER PIN AMP	128	71		V HOLD	128
SEXY	12			134	72		H BLANKING	74
14	13			128	73		H BLANKING <50>	63
15			V LINEARITY				O/S UPPER V BLK <50>	21
16		· · · · · · · · · · · · · · · · · · ·		32	75		O/S LOWER V BLK <50>	73
17								117
18								26
19		U/S DEF						83
H SIZE		0/0 DDI			-			140
PIN PHASE								90
PIN AMP						SYSTEM		1
23						STOTEM		0
V SIZE <60>		O'S DEE			-			2
H SIZE		U/S DEF						1
PIN PHASE								
PIN AMP								
LOWER PIN AMP	-				-			
132 89					-			<u>C</u>
LOWER V BOW 32 90 RGB MODE A 31 COMPONENT SUB PHASE 131 91 RGB MODE B 32 SUB CHROMA <normal> 97 92 AGING MODE 33 SUB CHROMA <smpte> 157 93 MODEL 157 94 COLOR TEMP DISP 1 157 94 COLOR TEMP DISP 1 157 94 COLOR TEMP DISP 1 157 95 COLOR TEMP DISP 2 157 95 COLOR TEMP DISP 2 157 96 REMOTE ADDRESS 157 97 PHASE 103 97 RESERVED 158 159</smpte></normal>								C
SUB CHROMA								0
SUB CHROMA <normal> 97 92 AGING MODE </normal>					-			0
SUB CHROMA <smpte> 157 93 MODEL </smpte>		COMPONENT						0
R-Y LEVEL 157 94 COLOR TEMP DISP 1 35 NTSC BURST GATE PULSE WIDTH 36 95 COLOR TEMP DISP 2 36 CRYSTAL 54 96 REMOTE ADDRESS 37 PHASE 103 97 RESERVED 38 B-Y PHASE 230 98 FACTORY SET FLAG 39 CHROMA 118 99 PACTORY SET FLAG 39 CHROMA 135 100 PACTORY SET FLAG 30 PACTORY SET FLAG					-			0
STOC BURST GATE PULSE WIDTH 36 95 COLOR TEMP DISP 2 36 CRYSTAL 54 96 REMOTE ADDRESS 37 PHASE 103 97 RESERVED		· · · · · · · · · · · · · · · · · · ·			-			5
36 CRYSTAL 54 96 REMOTE ADDRESS 37 PHASE 103 97 RESERVED 38 B-Y PHASE 230 98 FACTORY SET FLAG 39 CHROMA 118 99 40 R-Y LEVEL 105 100 41 PAL CRYSTAL 65 101 42 PHASE 76 102 43 B-Y PHASE 125 103 44 CHROMA 135 104 45 R-Y LEVEL 123 105 46 C/T1 ??00K 3200K SW 0 106 47 BIAS <red> 554 107 48 BIAS <red> 554 107 49 BIAS <blue> 519 109 50 GAIN <red> 668 110 51 GAIN <blue> 633 112 53 C/T2 ??00K 320K SW 0 113 54 BIAS <red> 650 114 55 BIAS <green> 512 115 56 BIAS <green> 512 115 57 GAIN <green> 700 118 59 GAIN <green> 700</green></green></green></green></red></blue></red></blue></red></red>	-							65
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B-Y PHASE 230 98								1
CHROMA								C
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42 PHASE 76 102 43 B-Y PHASE 125 103 44 CHROMA 135 104 45 R-Y LEVEL 123 105 46 C/T1 ??00K 3200K SW 0 106 47 BIAS <red> 554 107 48 BIAS <green> 512 108 49 BIAS <blue> 519 109 50 GAIN <red> 668 110 51 GAIN <green> 700 111 52 GAIN <blue> 633 112 53 C/T2 ??00K 320K SW 0 113 54 BIAS <red> 650 114 55 BIAS <green> 512 115 56 BIAS <blue> 352 116 57 GAIN <red> 726 117 58 GAIN <green> 700 118 59 GAIN <blue> 520 119</blue></green></red></blue></green></red></blue></green></red></blue></green></red>	40		R-Y LEVEL	105	100			
43 B-Y PHASE 125 103 44 CHROMA 135 104 45 R-Y LEVEL 123 105 46 C/T1 ??00K 3200K SW 0 106 47 BIAS <red> 554 107 48 BIAS <green> 512 108 49 BIAS <blue> 519 109 50 GAIN <red> 668 110 51 GAIN <green> 700 111 52 GAIN <blue> 633 112 53 C/T2 ??00K 3200K SW 0 113 54 BIAS <red> 650 114 55 BIAS <green> 512 115 56 BIAS <blue> 352 116 57 GAIN <red> 726 117 58 GAIN <green> 700 118 59 GAIN <blue> 520 119</blue></green></red></blue></green></red></blue></green></red></blue></green></red>	41	PAL	CRYSTAL	65	101			
44 CHROMA 135 104 45 R-Y LEVEL 123 105 46 C/T1 ??00K 3200K SW 0 106 47 BIAS <red> 554 107 48 BIAS <green> 512 108 49 BIAS <blue> 519 109 50 GAIN <red> 668 110 51 GAIN <green> 700 111 52 GAIN <blue> 633 112 53 C/T2 ??00K 3200K SW 0 113 54 BIAS <red> 650 114 55 BIAS <green> 512 115 56 BIAS <blue> 352 116 57 GAIN <red> 726 117 58 GAIN <green> 700 118 59 GAIN <blue> 520 119</blue></green></red></blue></green></red></blue></green></red></blue></green></red>	42		PHASE	76	102			
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56 BIAS <blue> 352 116 57 GAIN <red> 726 117 58 GAIN <green> 700 118 59 GAIN <blue> 520 119</blue></green></red></blue>			A CONTRACTOR OF THE PROPERTY O					
57 GAIN <red> 726 117 58 GAIN <green> 700 118 59 GAIN <blue> 520 119</blue></green></red>								<u> </u>
58 GAIN < GREEN> 700 118 59 GAIN < BLUE> 520 119								<u> </u>
59 GAIN <blue> 520 119</blue>								<u> </u>
60 USER C/T ORG 3200K SW 0 120								
	60	USER C/T ORG	3200K SW	0	120			

PREPARATIONS (2)

* When composite video or component signals are supplied, they must be supplied as below.

Signal		Signal Contents	Standard Level P-W
COMPOSITE VIDEO	358NT	100% WHITE	0.714V
		75% WHITE	0.536V
	PAL	100% WHITE	0.7V
		75% WHITE	0.525V
COMPONENT	BETA 0	100% WHITE Y	0.7V
		75% WHITE Y	0.525V
		75% COLOR B-Y, R-Y (This item only p-p)	0.7V
	SMPTE	100% WHITE Y	0.7V
		75% WHITE Y	0.525V
		75% COLOR B-Y, R-Y (This item only p-p)	0.525V
AUDIO		-0.5dBs	0.436Vrms

* In this document, terms inside boxes _____ are names of service mode adjustments.

Example 60H-FREQ

- * After making adjustments in service mode, write the adjustment data before cutting off the power. If you cut off the power without writing, the results of your adjustments are all lost.
- * Standard inspection conditions

Unless specifically specified otherwise in this document, the following conditions are used for adjustments and inspections.

APERTURE

MIN

BRIGHT

50% (Center click)

CHROMA

50% (Center click)

PHASE

50% (Center click)

CONTRAST

80% (Center click)

VOLUME

50%

3-2. WRITING MODEL DATA

1. In service mode, write in the following model data at MODEL

PVM-1353MD/1953MD 5

PVM-1453MD/2053MD · · · · · 1

2. In service mode, write in the following data at COLOR TEMP DISP 1 .

PVM-1353MD/1453MD----- 65 PVM-1953MD/2053MD------65

3. In service mode, write in the following data at

COLOR TEMP DISP 2

PVM-1353MD/1453MD 56

PVM-1953MD/2053MD 56

3-3. PICTURE OUTPUT

- 1. Set the AC input voltage.
 - (1) Input the video and audio signals to the corresponding terminals on the connector panel.
 - (2) Set the sliduck AC voltage as shown on the right.

Model	Voltage	
PVM-1353MD/1953MD	AC120 ± 3V (Distortion rate : 3% or less)	
PVM-1453MD/2053MD	AC220 ± 3V (Distortion rate : 3% or less)	

3-4. LANDING ADJUSTMENT

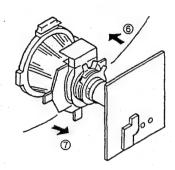
- 1. Preparations
- 1) To reduce the influence of geomagnetism, face the set's CRT screen east or west.
- 2) Loosen the deflection yoke fixture and lower the deflection yoke to the rear.
- 3) Switch on the Power switch and degauss with the degausser.
- 4) Adjust the deflection yoke tilt.
- 2. Adjustment
- 1) CONT MIN

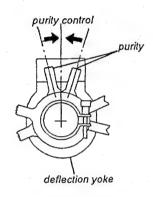
BRT..... Position providing good vision

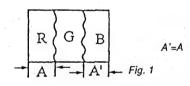
- 2) The rough adjustments of the white balance, G2, and convergence must be completed already
- 3) Set green-only.
- 4) Adjust the purity knob so that the green comes to the center of the screen. Make the red and blue about even. Fig. 1
- 5) Switch to blue only, red only, and green only and verify each. Fig. 1, 2, and 3
- 6) Bring the deflection yoke gradually forward and adjust the deflection yoke so that the R and B at both sides of the screen become green. Fig. $2 \rightarrow 3$
- 7) If the deflection yoke comes too far forward, you will see the pattern shown in Figure 4. If that happens, lower the deflection yoke to the rear. Fig. $4 \rightarrow 3$
- 8) Switch the single color switch to B and verify the single color. Fig. 6 -
- 9) Switch the single color switch to R and verify the single color. Fig. 9
- 10) When one of the colors does not become the single color correctly, check by repeating Items 7 and 8 based on the single color not coming into adjustment.

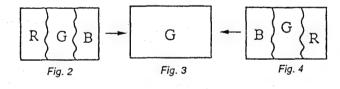
If you can not obtain landing in the corners, paste on magnets.

- 11) Switch to an all-white signal and check the uniformity.
- 12) When the deflection yoke position is determined, fasten it with the fixture.









$$\begin{bmatrix}
G \\
B \\
Fig. 5
\end{bmatrix}
R
B
R
R
B
G
Fig. 7$$

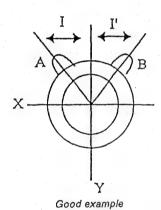
3-5. CONVERGENCE ADJUSTMENT

- Input a dot pattern signal.

 CONT ······ Position providing good vision
 BRT······ MIN
- 2. Align the horizontal R, G, and B dots at the center of the screen with the H-STAT VR. (*1)
 - *1: If the H-CENTER adjustment was after the H-STAT adjustment, re-adjust the H-STAT.
- (The H-CENT VR changes the H-STAT too.)

 3. Align the R, G, and B at the center of the screen with the
 - V-STAT magnets. (*2)

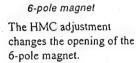
 *2: After the V-STAT adjustment, paint on the knobs to lock them.

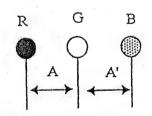


V-STAT magnet knobs While keeping the angles for A and B equal (1=I'), align the vertical convergence. If the A and B knobs are not symmetrical ($1 \neq 1$), this has bad effects. The focus may deteriorate and beam striking may occur.

4. For HMC, use the 6-pole magnet to adjust the R and B dots to be symmetrical left and right about the G dot. (*1)

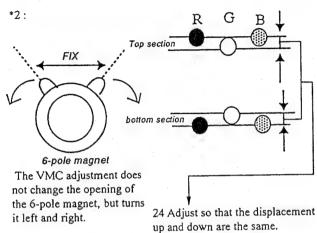
A B



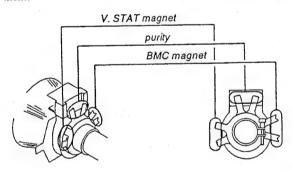


Adjust the 6-pole magnet so that A=A'. You must maintain the relationship $I \neq I'$ while moving the magnet.

5. For VMC, use the 6-pole magnet to adjust the R and B dots to be symmetrical above and below the G dot. (*2)



- 6. Adjust by repeating the adjustments in Items 2 through 5. (*3)
 *3: The above adjustment may affect the landing, so after this adjustment, check the landing again.
- 7. After the adjustment is complete, paint on the knobs to lock them.

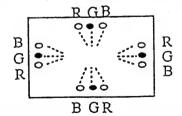


3-6. DEFLECTION YOKE NECK ROTATION ADJUSTMENT

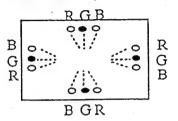
If there is misconvergence at both sides on the X or Y axis of the screen, turn the neck of the deflection yoke in the direction of the arrow to reduce the misconvergence for the entire CRT screen to within the tolerance.

1. Reverse misconvergence pattern

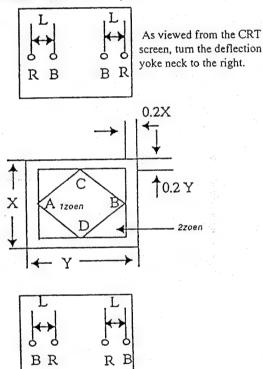
Turn the deflection yoke neck down.



Positive misconvergence pattern Turn the deflection yoke neck up.

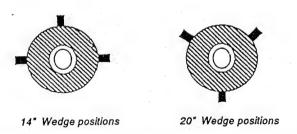


Pattern when deflection yoke too far to the left



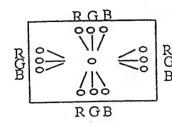
Pattern when deflection yoke too far to the right

Insert the three wedges in the deflection yoke and CRT funnel surface to fasten the deflection yoke.

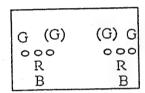


PVM-1353MD/1453MD

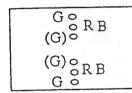
3. The pattern below can not be corrected by turning the neck.



* Gun rotation
The beam is twisted at both sides on the X axis and Y axis.



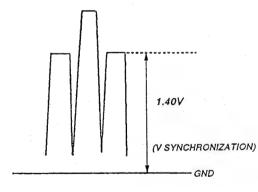
* HCR large (small)
At both sides of the screen,
the G raster horizontal
component is wider
(narrower) than those of the
R and B rasters.

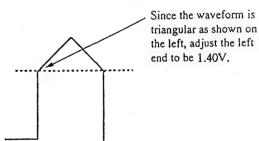


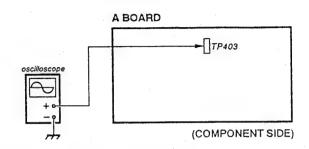
* VCR large (small)
At both sides of the screen,
the G raster vertical
component is wider
(narrower) than those of
the R and B rasters.

3-7, G2 ADJUSTMENT

- 1. Input a 525 monoscope signal.
- 2. Connect the oscilloscope to A board TP403.
- 3. Of the three reference pulses, measure the lowest one.
- 4. With the Screen VR, adjust so that left end of the waveform is: 1.40 ± 0.1V







3-8. WHITE BALANCE ADJUSTMENT

For measuring equipment, use a color analyzer. (for example from Minolta, etc.)

- Input a 525 monoscope signal. (Input from Line A with no burst.)
- 2. Set:

CONT 0%

BRT..... 50%

3. On a 20-tone gray scale, adjust service mode SUB BRIGHT so that

0 and 5 IRE \rightarrow cut off 10 IRE \rightarrow slight glow

- 4. Input 525 all-white (no burst).
- 5. Set CONT to 80%.
- 6. Adjust the all-white signal luminance so that the screen luminance is 3 NIT.
- 7. Press MENU and select COL TEMP/SEL.
- 8. Select T1: 6500K.
- 9. Put the unit into service mode. (*1)
 - *1 : Set 3200 K SW to 0 for both T1 and T2.
- 10. Adjust to the standard values with C/T1 XX00K BIAS. (G must be fixed at "512".) (*2)

*2: Adjust the cut-off to be 3 NIT.

Spec. 6500K + 8M PCD

- 11. Switch the all-white signal luminance to 100 IRE.
- 12. Adjust to the Standard values with <RED> and <BLUE> of C/T1 GAIN XX00 K.

(G must be fixed at "700")

- 13. Repeat Items 10, 11 and 12 until the adjustment is complete, then write the adjustment data.
- 14. Press MENU and select COL TEMP/BAL.
- 15. Select T2: 5600K.
- 16. In the same manner as in Items 10, 11, 12 and 13 make the C/T2 5600K BIAS and C/T2 5600K GAIN adjustments.

 Spec. 5600K + 8M PCD

3-9. SUB BRT ADJUSTMENT

- 1. Input a 525 monoscope signal.
- 2. CONT ····· MIN
 - BRT CENTER (50%)
- 3. Put the unit into service mode and select SUB BRIGHT
- 4. Adjust SUB BRIGHT so that 10 IRE gives a slight glow and 10 IRE gives cut off.

3-10. FOCUS ADJUSTMENT

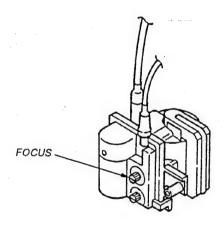
Note: PVM-1353MD/1453MD are adjusted with RV707 on the C board.

PVM-1953MD/2053MD are adjusted with the RV at the top of the FBT main nuit.

1. Input a 525 monoscope signal. (PVM-1353MD/1953MD ONLY)

Input a 625 monoscope signal. (PVM-1453MD/2053MD ONLY)

- 2. Adjust the focus to optimize the focus on the characters "30" at the center of the screen.
- 3. Switch to an all-white signal and check the uniformity.



SECTION 4 SAFETY RELATED ADJUSTMENT

The following adjustments should always be performed when replacing the following components (marked with \blacksquare , \square on the schematic diagram).

+B detection ····· R1535
Tertiary coil detection R1536

Part replaced ()

Hold Down Circuit A board IC500, IC507, D501,

D533, C506, C512, C523, C549, C592, R506, R518, R519, R551, R1536,

R1537, R1560, T501

Beam Current Protector

Circuit A board Q500, Q511, C513, R508,

R515, R516, R517

B+ Regulator Circuit ······ A board R1535

☐ G board IC602, C603

B+ VOLTAGE CONFIRMATION

Standard: less than 117.0VDC

Check Condition: Input voltage: 110 ± 2 VAC

Note: Use NF Power Supply or make sure that

distortion factor is 3% or less.

Input signal: Monoscope signal

Controls: BRT & CONT ⇒ Initial reset

HOLD-DOWN CIRCUIT VOLTAGE CONFIRMATION

(1) Hold down circuit (B+ Actuation)

a) When IABL = $600 \pm 50 \mu$ A, raster goes out at less than $130 \pm \frac{\alpha_0}{10}$ V by applying an external DC voltage to IC500 ② pin (TP502).

Input signal: ALL white

b) When IABL = $40 \pm 20 \mu$ A, raster goes out at less than 132 $\pm \frac{0.0}{10}$ V by applying an external DC voltage to IC500 ② pin (TP502).

Input signal: Dot

- (2) Hold down circuit (Tertiary coil detection voltage)

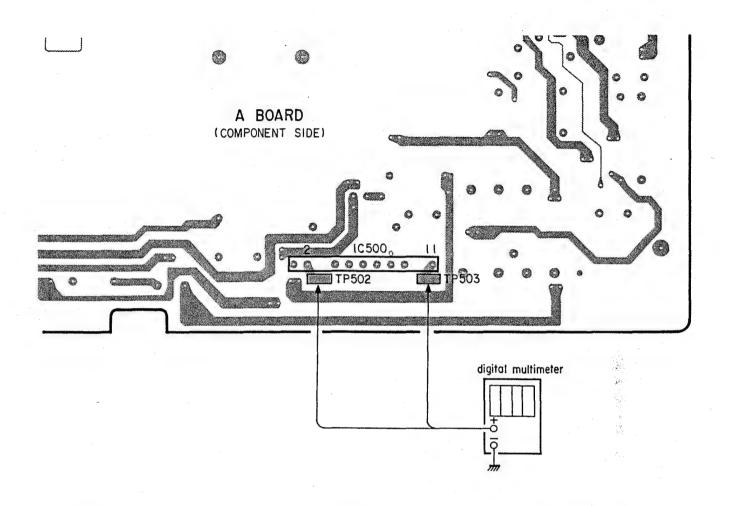
 Confirmatory item: 110.0V voltage should be applied to the

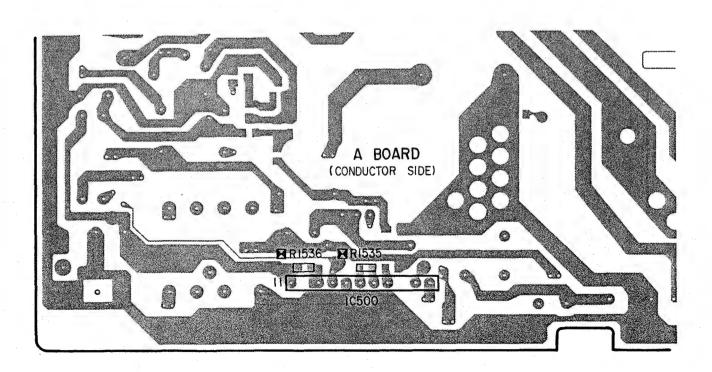
 pin of IC500.
 - a) When IABL = $600 \pm 50 \mu$ A, raster goes out when applying less than DC 146.7V voltage to the ① pin (TP503) of IC500 from outside.

Input signal: ALL white

b) When IABL = $40 \pm 20 \mu$ A, raster goes out when applying less than DC 147.0V voltage to the (1) pin (TP503) of IC500 from outside.

Input signal: Dot

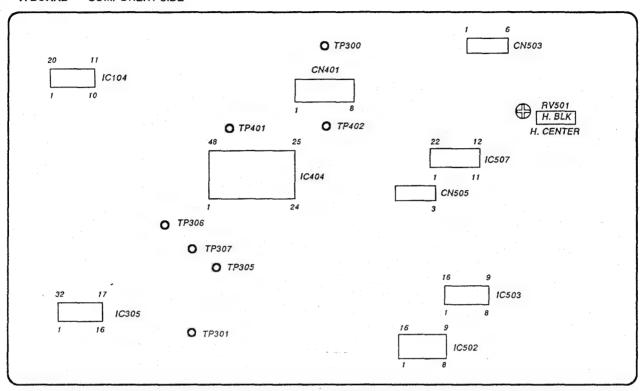




SECTION 5 CIRCUIT ADJUSTMENTS

5-1. A BOARD ADJUSTMENT

A BOARD - COMPONENT SIDE -



A BOARD - CONDUCTOR SIDE -

I. Preparations

* When composite video or component signals are supplied from connector CN301, they must be supplied taking into account the effect of the Q board as indicated on the right.

The levels of the signals supplied must be within $\pm 2\%$ of the standard on the right.

Signal		Signal Contents	Standard Level (Pedestal-White)	Reduction Ratio	Connector Feed Level (Pedestal-White)
		100% WHITE	0.714V	93%	0.664V
	358NT	75% WHITE	0.536V	93%	0.498V
COMPOSITE	BURST (GREEN)		286mV (632mV)	94% (94%)	269mV (594mV)
VIDEO (75% COLOR BAR)		100% WHITE	0.7V	94%	0.651V
		75% WHITE	0.525V	94%	0.488V
	(GRI	PAL BURST (GREEN) (This item only P-P)	300mV (664mV)	94% (94%)	282mV (624mV)
		100% WHITE Y	0.7V	94.8%	0.664V
		75% WHITE Y	0.525V	94.8%	0.498V
COMPONENT	BETA0	75% COLOR B-Y, R-Y (This item only P-P)	0.7∨	94.8%	0.664∨
(75% COLOR BAR)		100% WHITE Y	0.7V	94.8%	0.664V
		75% WHITE Y	0.525V	94.8%	0.498V
	SMPTE	75% COLOR B-Y, R-Y (This item only P-P)	0.525V	94.8%	0.498∨

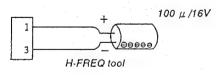
* In this	document, terms inside boxes	are names	of
service	mode adjustments.		
Example	60H-FREO		

* CONT 80% is the center click position for the user control.

II. Deflection System Adjustment

1. ADJUSTING THE HORIZONTAL OSCILLATION FREQUENCY

- 1. Input a 525 monoscope signal.
- 2. Set: CONT..... 80% BRT.....50%
- 3. Put the unit into service mode.
- 4. Drop A board IC507 Pin 1 to ground with a $100\mu/16V$ electrolytic capacitor. (Ground must use CN505 Pin 3.) Or plug the H-FREQ tool into CN505.
- 5. Adjust 60H-FREQ so that the diagonal lines on the screen become vertical lines. (Fig. 1)
- 6. Input a 625 monoscope signal.
- 7. Adjust 50H-FREQ so that the diagonal lines on the screen become vertical lines. (Fig. 1)



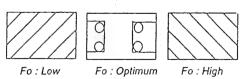


Fig. 1

2. H-BLK Adjustment

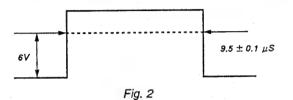
1. Input a 525 monoscope signal.

2. Set:

CONT 80%

BRT-----50%

- 3. Put the unit into service mode.
- 4. Observe the anode of D516 or TP300 with the oscilloscope and adjust H-BLK to obtain the waveform in Fig. 2.



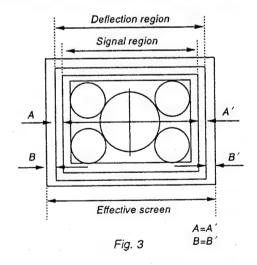
3. PICTURE PHASE Adjustment

- 1. Input a 525 monoscope signal.
- 2. Put the unit into under scan mode.
- 3. Set :

CONT ····· Min.

BRT.....Max.

- 4. Put the unit into service mode.
- 5. Use U/S H SIZE to adjust the size of the monoscope white frame to be about 1 cm to the inside of the limits of the effective screen.
- 6. Tum RV501 (H-CENT) and adjust so that B=B'.
- 7. Adjust 60 VIDEO PHASE so that the signal region comes to the center (A=A') of the deflection region. (Fig. 3)



- 8. Input a 625 monoscope signal.
- 9. Adjust 50 VIDEO PHASE in the same manner.

4. V·BLK Adjustment

- 1. Input a 525 monoscope signal.
- 2. Put the unit into under scan mode.
- 3. Set:

CONT Min.

BRT Max.

- 4. Put the unit into service mode.
- 5. Adjust V BLK (60) so that before 0.5H of the white frame on the top of the monoscope is barely unblocked.
- 6. End under scan mode and put the unit into Normal 16:9
- 7. Input a 625 monoscope signal.
- 8. Adjust V BLK (50) in the same manner as in 5 above.

5. VERTICAL DEFLECTION SECTION Adjustment

Normal V. Size Standards

	525	625	
4:3	11.75 ± 0.2 frames	11.2 ± 0.2 frames	

- 1. Input a 525 monoscope signal.
- 2. Set:

CONT 80%

BRT 50%

- 3. Put the unit into service mode.
- 4. Roughly adjust 4: 3 NOR V-SIZE 60 so that the size becomes to 12 frames.

Adjust the vertical linearity with V-LIN

Adjust the vertical centering with V-CENT 60 . (Refer to Note 1.)

Adjust 4: 3 NOR V-SIZE 60 so that the size becomes to the standard value.

- 5. Input a 625 monoscope signal.
- 6. Roughly adjust 4: 3 NOR V-SIZE 50 so that the size becomes to 11 frames.

Adjust the vertical centering with V-CENT 50 . (Refer to Note 1.)

Adjust 4:3 NOR V-SIZE 50 so that the size becomes to the standard value.

Note 1

Reconfirmation is necessary for V. CENT adjustment after V. LIN adjusted.

6. HORIZONTAL DEFLECTION SECTION Adjustment (NORMAL SCAN Adjustment)

- 1. Input a 525 monoscope signal.
- 2. Set:

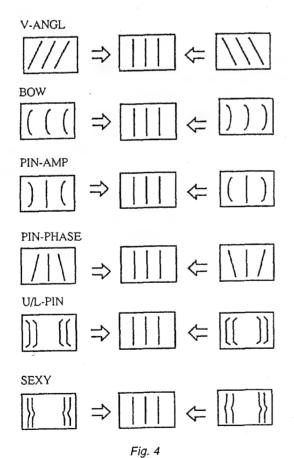
CONT 80%

BRT 50%

- 3. Put the unit into service mode.
- 4. Roughly adjust NOR H SIZE so that the size is 15.75
- 5. Adjust the horizontal deflection section with NOR PIN AMP NOR PIN PHASE NOR U/L PIN SEXY V BOW V ANGL NOR H SIZE LOW PIN AMP LOW V BOW. (While adjusting the parallelogram distortion and bow distortion with V. ANGL and BOW, adjust the horizontal and vertical lines of the screen becomes straight lines.)
- 6. Input a 625 monoscope signal.
- 7. Confirm that the screen is normal.

Normal H.Size Standards

	525	625
4:3	15.75 ± 0.2 frames	15.0 ± 0.2 frames



7. HORIZONTAL DEFLECTION SECTION Adjustment (UNDER SCAN Adjustment)

Standard value

		525	625
	U/S H-SIZE	252 ± 2mm	
14"	U/S V-SIZE	188 ± 2mm	
	U/S H-SIZE	364 ± 3mm	
20"	U/S V-SIZE	272 ± 3mm	

- 1. Input a 525 monoscope signal.
- 2. Set:

CONT80% BRT50%

- 3. Set to U/S mode.
- 4. Set to service mode.
- 5. Adjust U/S V. SIZE <60> so that UNDER V. SIZE becomes within the standard.
- Adjust U/S. H. SIZE so that UNDER H. SIZE becomes within the standard.
- 7. Adjust U/S PIN AMP and U/S PIN PHASE. (Steps 5., 6. and 7. explains tracking adjustment.)
- 8. It's not favorable when the square white line is bulging out of the effective screen after adjusted.
- 9. Input a 625 monoscope signal.
- 10. Adjust U/S V. SIZE <50> becomes within the standard value.

8. OVER SCAN Adjustment

- 1. Input a 525 monoscope signal.
- 2. Set:

CONT80% (center click) BRT50%

- 3. Set to O/S mode.
- 4. Set to service mode.
- Adjust O/S H. SIZE and O/S V. SIZE <60> so that H. SIZE becomes 13.6 frames and V. SIZE becomes 10.2 frames.
- 6. Adjust horizontal deflection section with O/S PIN AMP
 O/S PIN PHASE O/S U/L PIN O/S LOW PIN AMP
 O/S LOW V. BOW.
- 7. Input a 625 monoscope signal.
- 8. Adjust O/S V SIZE <50> becomes within the standard value,

Standard value

	525	625	
O/S H. SIZE	13.6 ± 6 frames	$13.0 \pm ^{ce}_{6}$ frames	
O/S V. SIZE	10.2 ± 0 frames	9.8 ± cs frames	

O/S PIN . AMP O/S PIN . PHASE O/S U/L. PIN O/S LOW PIN . AMP O/S LOW BOW O/S LOW BOW O/S LOW BOW O/S LOW BOW

Fig. 5

9. OSD POSITION Adjustment

- 1. Input a 525 color bar signal.
- Connect the oscilloscope probes to TP300 (H-BLK) and IC104 Pin 14.
- 3. Adjust OSD POSITION so that the gap between the rising edge of the H-BLK waveform and the right edge character (the right edge of the " \square " for service mode OSD POSITION) is: 57 μ S \pm 0.2 μ S

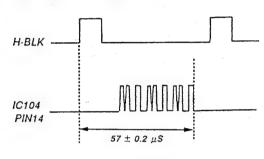


Fig. 6

10. WRITING THE ADJUSTMENT

- 1. Write the adjustment results into memory.
 - Note: If you cut off the power before writing, the results of your adjustments are all lost.

III. SIGNAL SYSTEM ADJUSTMENT

1. SUB CON ADJUSTMENT

*This adjustment ought to have completed before HUE adjustment of NTSC 358/443 and PAL.

Input a vertical white line signal.
 Note: Use a vertical white line signal
 (525 no burst, H width 3 μS, 100IRE).

2. Set: CONT ····· 80% BRT ···· 50%

- 3. Connect the oscilloscope probe to A board CN401 Pin 3.
- 4. Put the unit into service mode.
- 5. Adjust SUB BRT.
- 6. Adjust the pedestal or the distance between the sync tip and white with SUB CON (4:3 NOR).

SUB CON (4:3 NOR) (Fig. 7).

Adjust to the values on the below.

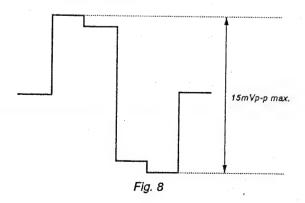
SUB-CON 4:3, NOR

20" 14"

4:3 1.55Vp-p 1.50Vp-p

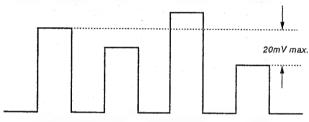
2. SUB PHASE Adjustment

- Input a component color bar (R-Y) and EXT SYNC (Beta 0 level signal).
- 2. Put the unit into Ext Sync mode.
- 3. Connect the oscilloscope probe to IC404 Pin 30 or TP402.
- 4. Put the unit into service mode.
- 5. Adjust SUB PHASE to minimize the output waveform (15 mVp-p max.) (Fig. 8)



3. SUB CHROMA Adjustment

- 1. Input a component color bar (R-Y, Y, B-Y). (Beta 0 level signal).
- 2. From the menu, make the Component Level Beta 0.
- 3. Connect the oscilloscope probe to IC404 Pin 30 or TP402.
- 4. Put the unit into service mode.
- 5. Using SUB CHROMA NORMAL, adjust so that the tops of the waveform line up as in the diagram below. (Fig. 9)

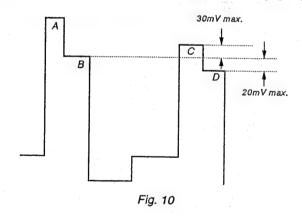


Adjust so that the levels of the first peak and the fourth peak are the same.

Fig. 9

4. R-Y LEVEL ADJUSTMENT

- 1. Input a component color bar (R-Y, Y, B-Y). (Beta 0 level signal).
- 2. From the menu, make the Component Level Beta 0.
- 3. Connect the oscilloscope probe to IC404 Pin 41 or TP401.
- 4. Put the unit into service mode.
- 5. Using R-Y LEVEL COMPONENT, adjust so that the tops of the waveform line up as in the diagram below. (Fig. 10)



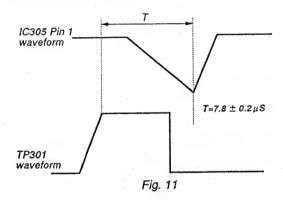
Adjust so that B=D above (20 mV max.) Check that the difference between D and C is no greater than 30 mV

5. SMPTE SUB COLOR Adjustment

- 1. Input a component color bar (R-Y, Y, B-Y). (SMPTE level signal).
- 2. From the menu, make the Component Level N10/SMPTE.
- 3. Connect the oscilloscope probe to IC404 Pin 30 or TP402.
- 4. Put the unit into service mode.
- In the same manner as in 4-5, adjust SUB CHROMA N10/SMPTE.

6. BURST GATE PULSE WIDTH Adjustment

- 1. Input an NTSC color bar.
- 2. Connect the oscilloscope probes to TP301 (COMP-SYNC) and Q363 or IC305 Pin 1. (Be careful! IC305 Pin 1 is a high-impedance line.)
- 3. Put the unit into service mode.
- 4. Adjust BGP WIDTH so that the output waveform has the relationship shown in Fig. 11.



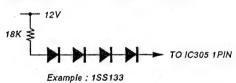
7. VXO Adjustment

1. X'tal 358

- 1) Input an NTSC color bar.
- 2) Connect the frequency counter to IC305 Pin 21.
- 3) Put the unit into service mode.
- 4) Connect the circuit on the below to IC305 Pin 1.
- 5) Adjust CRYSTAL 358 so that the counter reading meets the standard below. (You can also just adjust for where the color flicker stops.)

X'tal 358

Standard level 3579545 ± 20Hz



(For connecting to Pin 1, have the four diodes as close to Pin 1 as possible to reduce the length of the wires.)

2. X'tal 443

- 1) Input a 443 NTSC color bar.
- 2) Connect the frequency counter to IC305 Pin 21.
- 3) Put the unit into service mode.
- 4) Connect to IC305 Pin 1 in the same manner as in 1-4).
- 5) Adjust Crystal 443 in the same manner as in 1-5).

X'tal 443

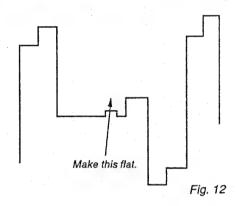
Standard level

4433619 ± 20Hz

8. NTSC COLOR DEMODULATION Adjustment

1. NTSC PHASE

- 1) Input NTSC color bar signal.
- 2) Connect the oscilloscope probe to TP306.
- 3) Set to service mode.
- 4) Adjust NTSC PHASE so that the output waveform burst section becomes a straight line. (Fig. 12)



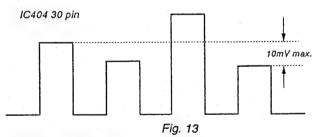
2. NT358 B-Y PHASE

The phase adjustment must be carried out before the chroma adjustment.

- Input an NTSC color bar. (Input only the R-Y component. Have B-Y and Y off.)
- 2) Connect the oscilloscope probe to TP305.
- 3) Put the unit into service mode.
- 4) Adjust B-Y PHASE NTSC 358 so that the color components form a straight line.

3. NT358 CHROMA (NORMAL)

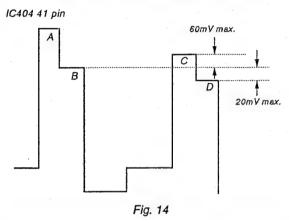
- 1) Input an NTSC color bar.
- 2) Connect the oscilloscope probe to IC404 Pin 30 or TP402.
- 3) Put the unit into service mode.
- 4) Using NTSC CHROMA NORMAL, adjust so that the tops of the waveform line up as in the diagram below. (Fig. 13)



Adjust so that the levels of the first peak and the fourth peak are the same.

4. NTSC 358 R-Y LEVEL

- 1) Input an NTSC358 color bar.
- 2) Connect the oscilloscope probe to IC404 Pin 41 or TP401.
- 3) Put the unit into service mode.
- 4) Using R-Y LEVEL NTSC 358, adjust so that the tops of the waveform line up as in the diagram below. (Fig. 14)



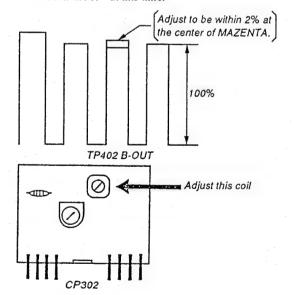
Adjust so that B=D above (20 mV max.) Check that the difference between B and C is no greater than 60 mV.

5. PAL LINE CRAWLING

Note: Perform before PAL PHASE ADJUSTMENT.

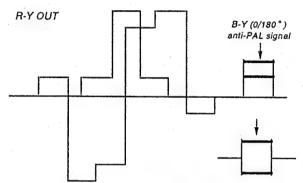
- 1) Input a PAL color bar.
- 2) Connect the oscilloscope probe to TP402 (B-OUT)
- 3) Adjust the coil of CP302 so that the shaking of MAZENTA wave form become minimum.

Do not touch the RV at this time.



6. PAL PHASE (NORMAL)

- 1) Input a PAL SP color bar.
- 2) Connect the oscilloscope probe to TP306.
- 3) Put the unit into service mode.
- 4) Adjust PHASE PAL NOR so that the B-Y anti-PAL signal waveform is 0. (Fig. 15)



* Varies every H, although slightly, so adjust so that the average is 0.

Fig. 15

7. PAL B-Y PHASE

- 1) Input a PAL SP color bar.
- 2) Connect the oscilloscope probe to TP305.
- 3) Put the unit into service mode.
- 4) Adjust B-Y PHASE PAL so that the B-Y anti-PAL signal waveform is 0. (Fig. 16)

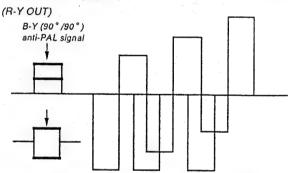


Fig. 16 * Varies every H, although slightly, so adjust so that the average is 0.

8. PAL CHROMA (NORMAL)

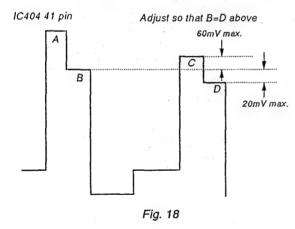
- 1) Input a PAL color bar.
- 2) Connect the oscilloscope probe to IC404 Pin 30 or TP402.
- 3) Put the unit into service mode.
- 4) Adjust CHROMA PAL NOR so that the tops of the waveform line up. (Fig. 17)

Adjust so that the B and D peaks are the same.

40 mV max.

9. PAL R-Y LEVEL

- 1) Input a PAL color bar.
- 2) Connect the oscilloscope probe to IC404 Pin 41 or TP401.
- 3) Put the unit into service mode.
- 4) Adjust R-Y LEVEL PAL so that the tops of the waveform line up as in the diagram below. (Fig. 18)



9. Writing the adjustment result

1. Write the adjustment results into memory.

5-2. G BOARD ADJUSTMENT

1. Checking the output lines

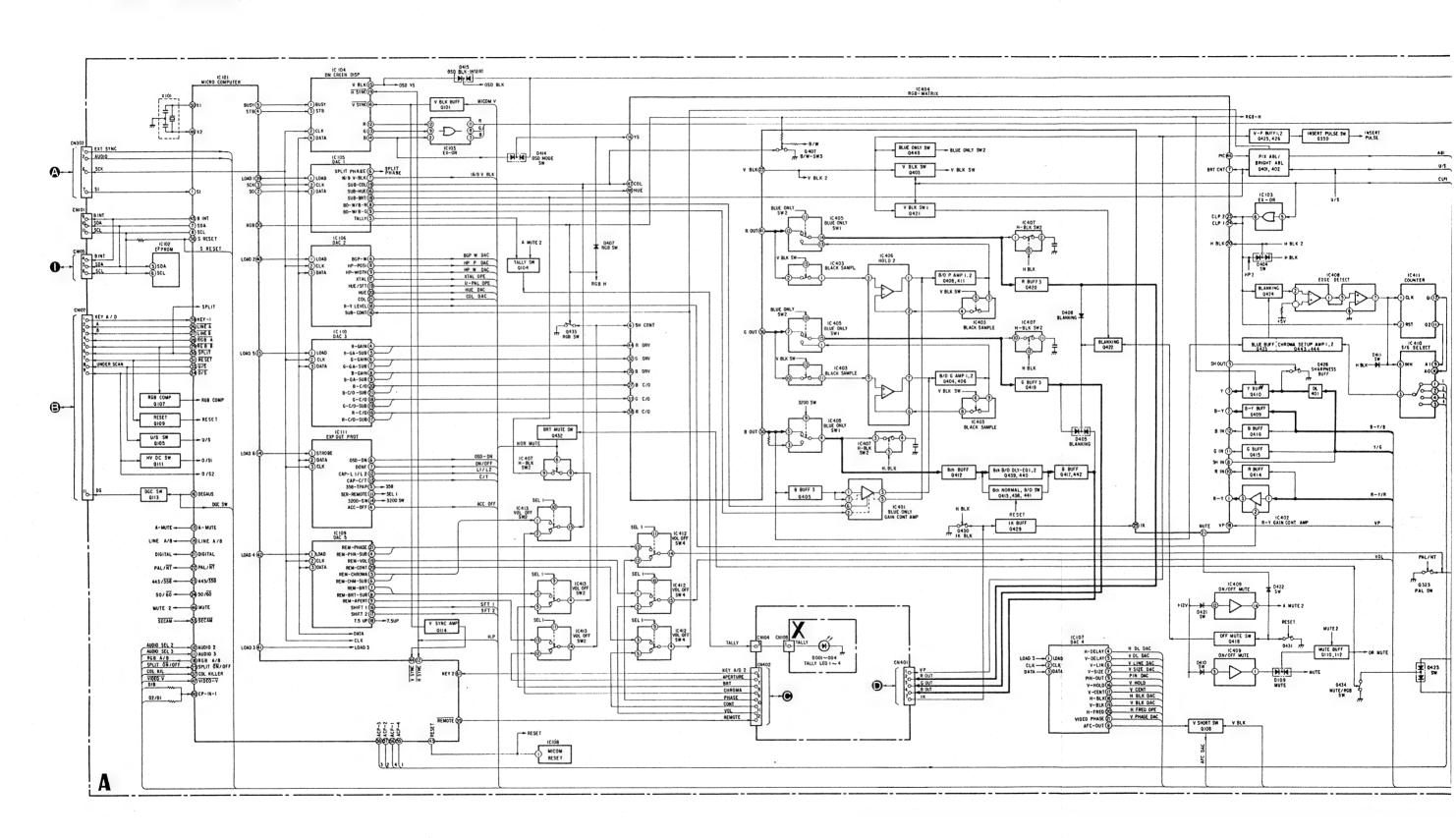
Check that the output lines meet the standards below.

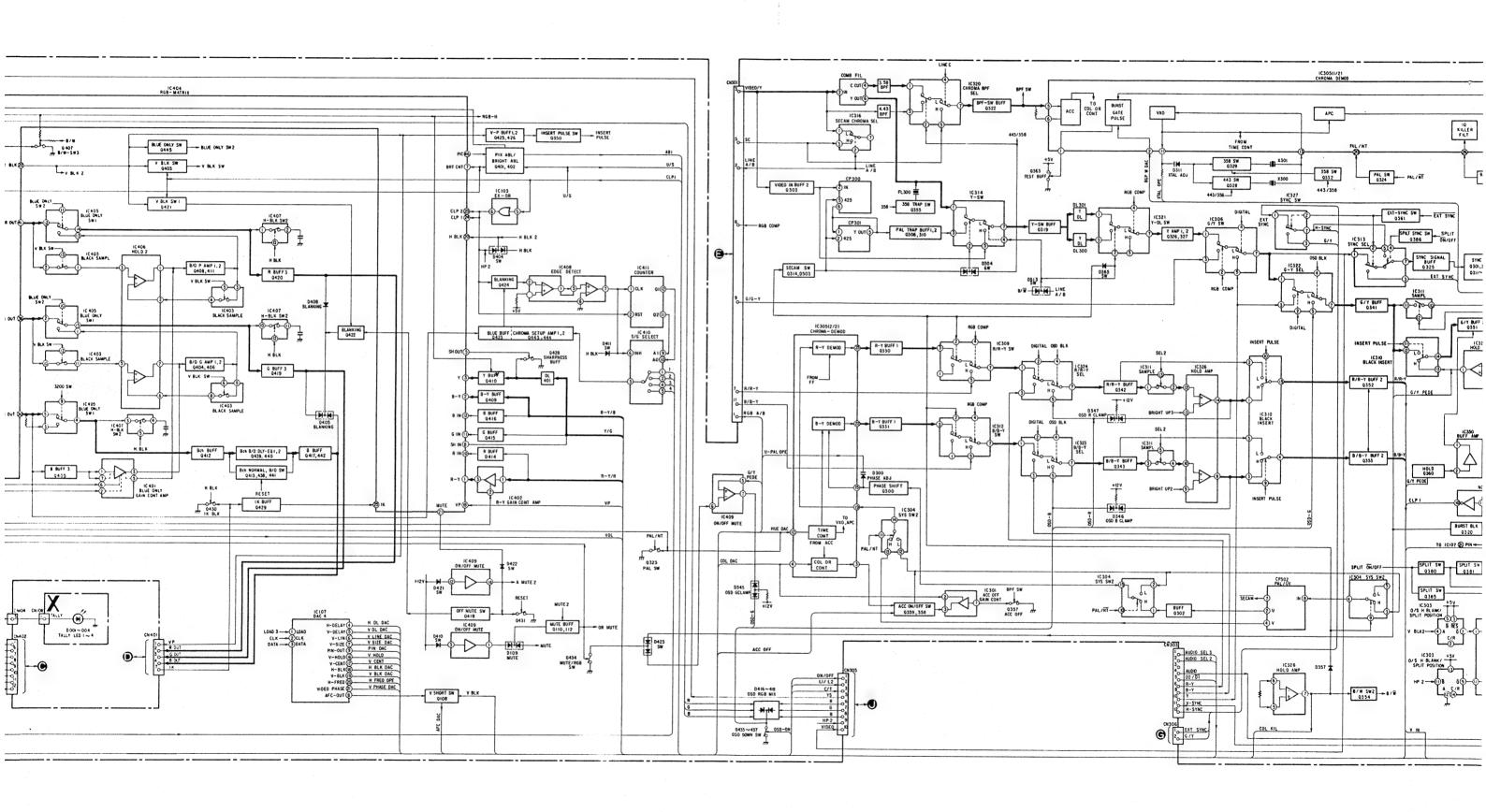
อเมริสต์ที่เคราะเหลืองการเหมือนและเกิดสาก เพื่องเมสเร็จว่า อยากละเลย

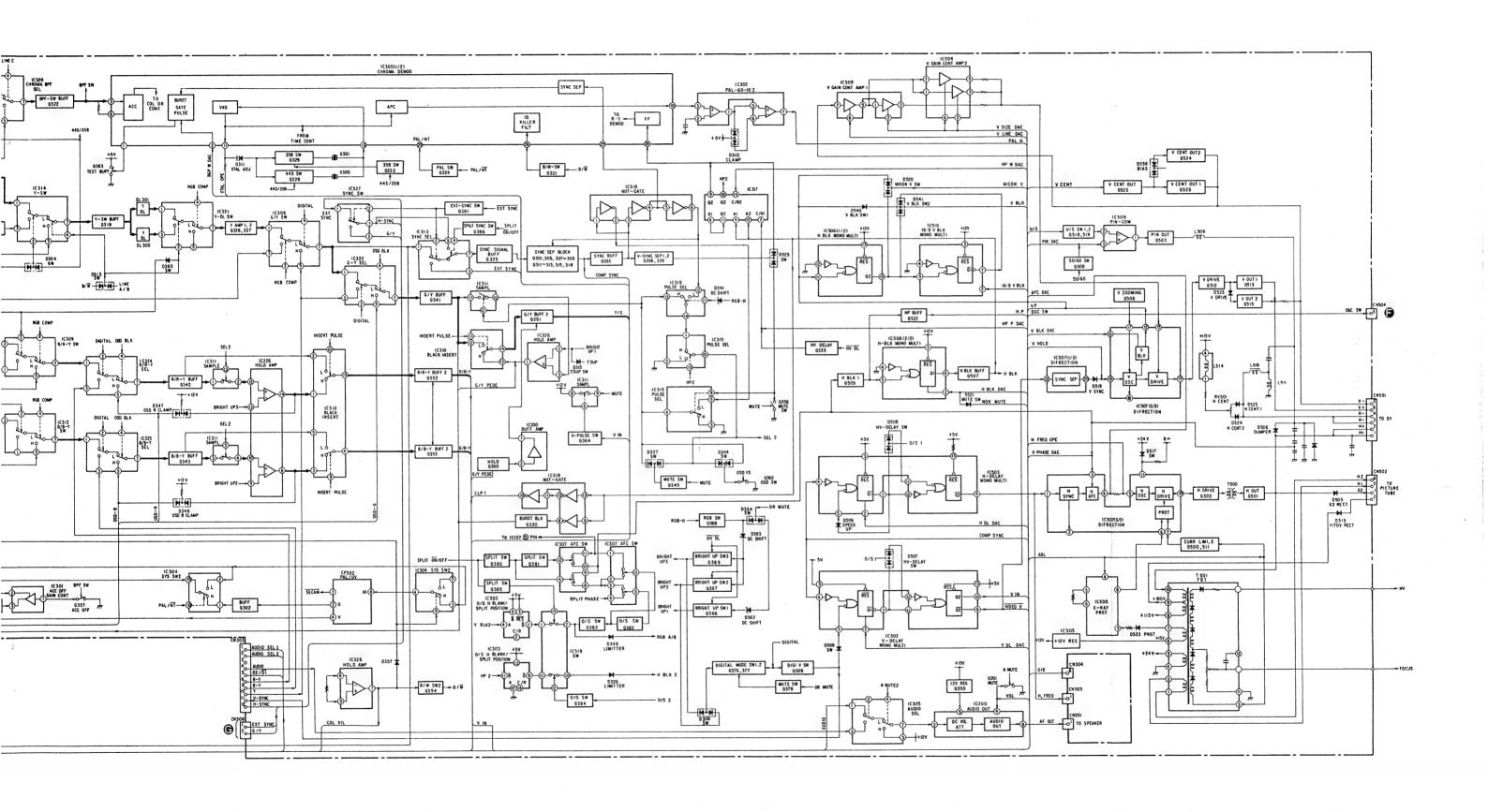
15V	$16.0 \pm 1.0 $ V
5V(A)	$5.0 \pm 0.3 \text{V}$
+B	$115 \pm 0.1 \text{V}$
5V	$5.0 \pm 0.5 V$

SECTION 6 DIAGRAMS

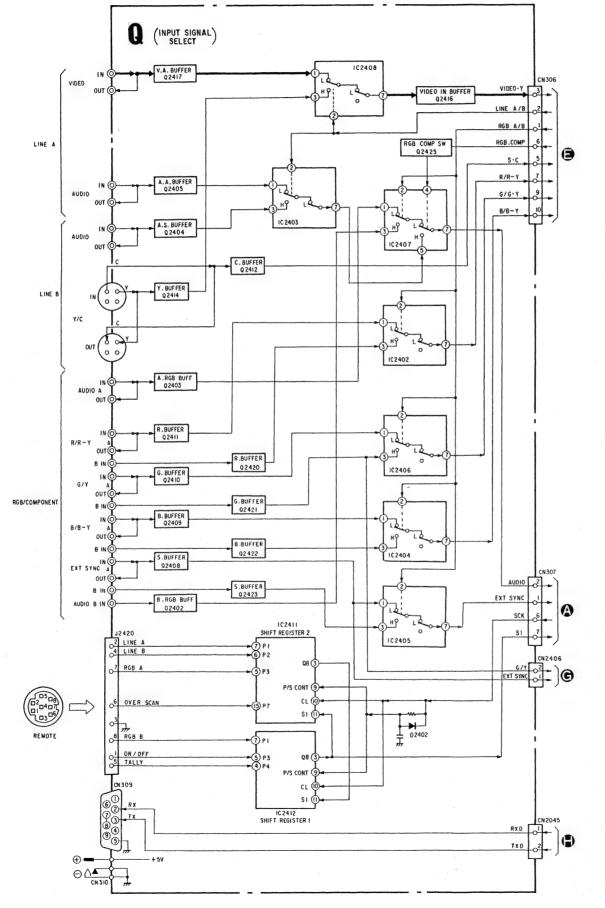
6-1. BLOCK DIAGRAMS (1)

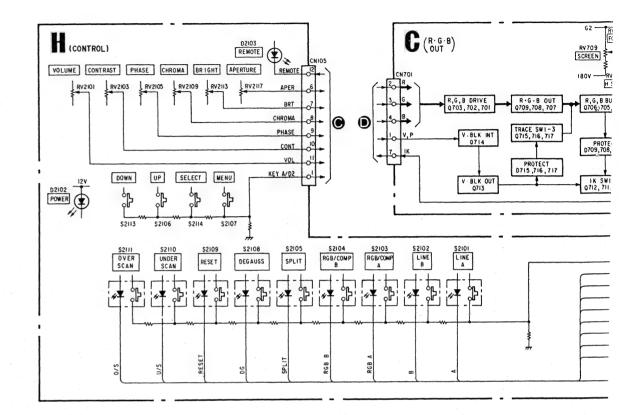


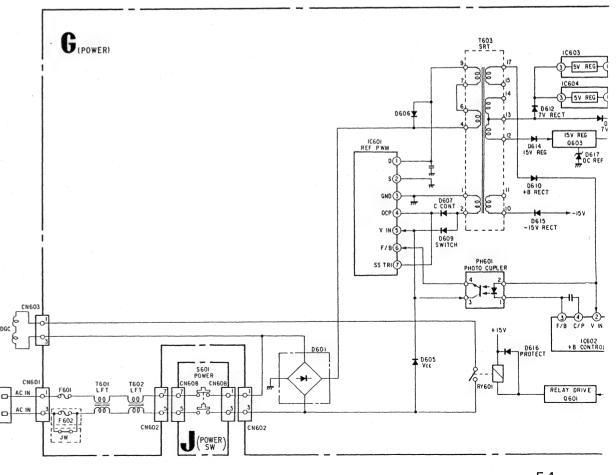


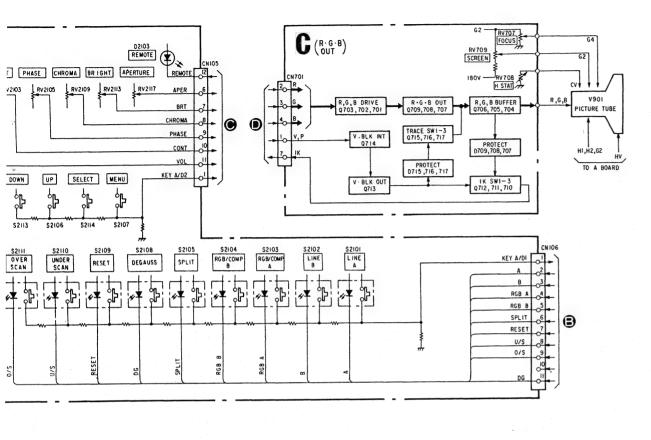


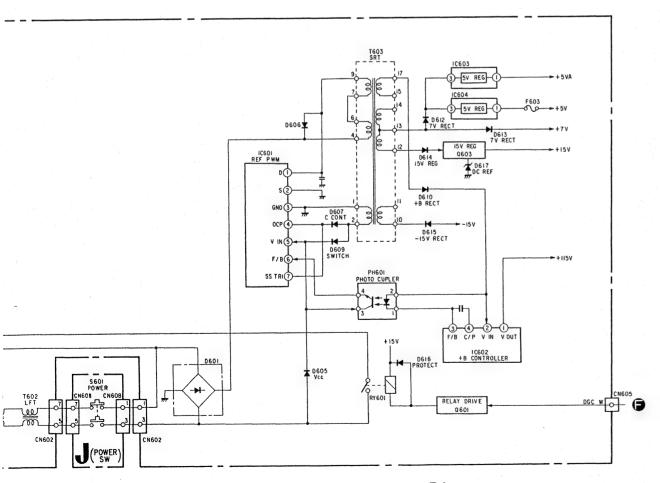
BLOCK DIAGRAMS (2)

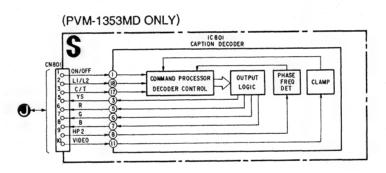


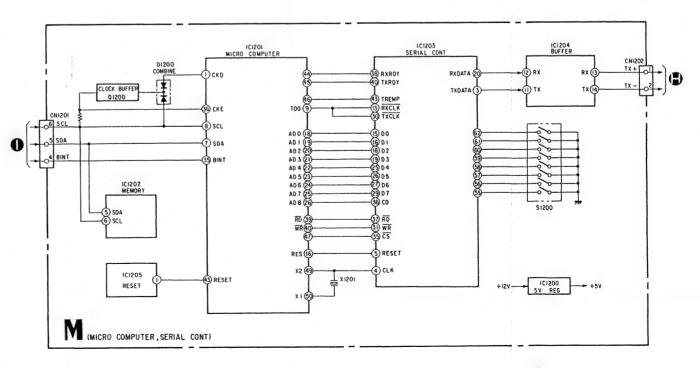




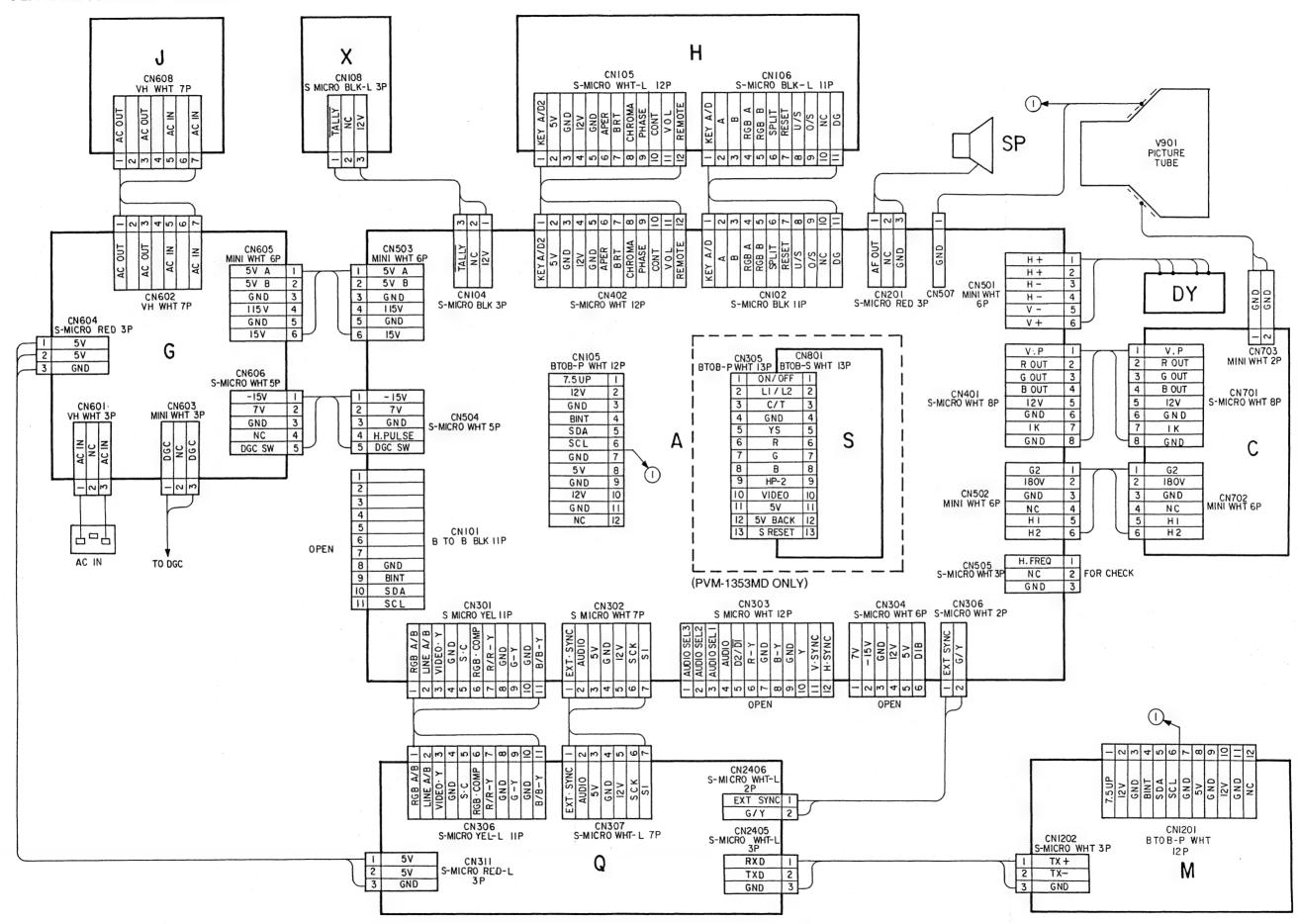




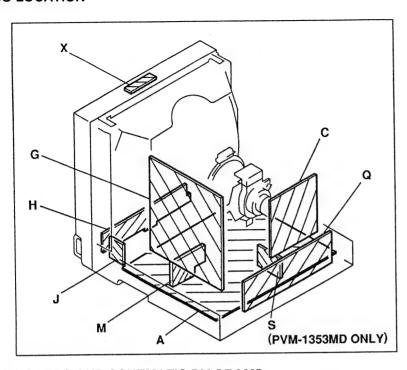




6-2. FRAME SCHEMATIC DIAGRAMS



6-3. CIRCUIT BOARDS LOCATION



6-4. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

Note:

- All capacitors are in μF unless otherwise noted, pF: μμF 50WV or less are not indicated except for electrolytics.
- All electrolytics are in 50V unless otherwise specified.
- All resistors are in ohms, 1/4W in resistance, 1/10W in chip resistance. k Ω =1000 Ω , M Ω =1000k Ω
- : nonflammable resistor.
- fusible resistor.
- _ _ : internal component.
- : panel designation and adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- The components identified by in this basic schematic diagram have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation.
- Should replacement be required, replace only with the value originally used.
- When replacing components identified by , make the necessary
 adjustments indicated. If results do not meet the specified value, change
 the component identified by and repeat the adjustment until the
 specified value is achieved. (Refer to R1535, R1536 adjust on Page 36.)
- When replacing the part in below table, be sure to perform the related adjustment.

Part replaced ()	Adjustment (►)
IC500, IC507, Q500, Q501, D501, D533, C506, C512, C513, C523, C549, C592, R506, R508, R515, R516, R517, R518, R519, R551, R1535, R1536, R1537, T501	R1535, R1536 (HOLD-DOWN)

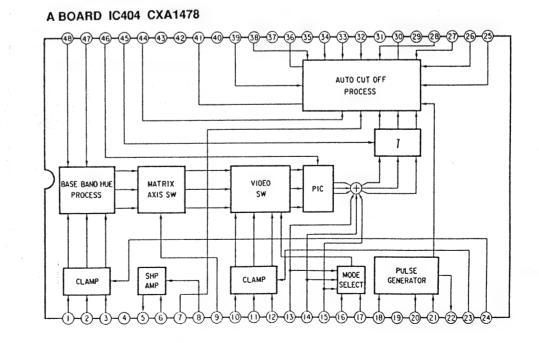
- · All voltage are in V.
- · Voltage are dc with respect to ground unless otherwise noted.
- · Readings are taken with a color-bar signal input.
- · Voltage variations may be noted due to normal production tolerances.
- B + bus.
 B bus.
- · Signal path.
- · No mark : with PAL color-bar signal is received or common voltage.
- For the respective voltage ratings in NTSC 3.58, S-VIDEO and ANALOG RGB modes, see the table.

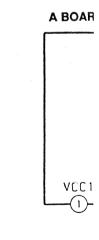
Reference Information

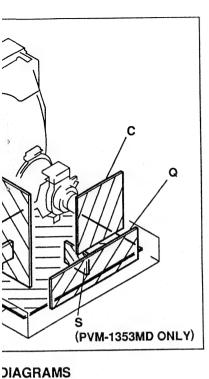
RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RW	NONFLAMMABLE WIREWOUND
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	:TA	TANTALUM
	:PS	STYROL
	: PP	POLYPROPYLENE
	:PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	; ALR	HIGH RIPPLE

Note: Les composants identifiés par une trame et par une marque A sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié.

A BOARD IC305 M51 A BOARD IC101 µPD78013YCW TO 0 / P30 O-16 bit TIMER / EVENT COUNTER PORTO PROGRAM COUNTER TI 0 / INTP 0 / P00 O-СОМ SYNC SEP TO 1/P31 O-8 NR TIMER / PORTO 1 TI 1 / P33 O GENERAL RGE. ROM PROGRAM MEMORY BURST GATE DECODE AND CONTROL PULSE TO 2/P32 O-PORTO 2 ⇒ P20 - P27 ROM DATA MEMORY S bit TIMER / 16384 × 8 EVENT COUNTER 2 544 X 8 ⇒ P30 - P37 PORTO 3 AMP-2 WATCHDOG TIMER PORTO 4 WATCH TIMER AMP - I PORTO 5 P50 - P57 \$10/\$80/P25 O-SERIAL INTERFACE 0 SO 0 / SB 1 / P26 O-SCK 0 / P27 O-P60 - P67 PORTO 6 SI 1 / P20 O-CLOCK GENERATOR STAND BY CONTROL CLOCK BUZZER OUTPUT SO 1 / P21 O-SUB MAIN SCX 17 P22 O-STB / P23 O-BUSY / P24 O-EXTERNAL ACCESS BUZ / P36 PCL / P35 P04/XT1 XT2 X1 X2 -O RD / P64 AV 00 O-A / D CONVERTER →O WAIT / P66 AVSS O-O ASTB / P67 AV REF Oδò RESET YOU YSS IC INTP 0 / P00 -INTP 3 / P03







- All voltage are in V.
- · Voltage are dc with respect to ground unless otherwise noted.
- Readings are taken with a color-bar signal input.
- · Voltage variations may be noted due to normal production tolerances.
- B + bus.
- Signal path.
- · No mark : with PAL color-bar signal is received or common voltage.
- For the respective voltage ratings in NTSC 3.58, S-VIDEO and ANALOG RGB modes, see the table.

Reference information

: ALT

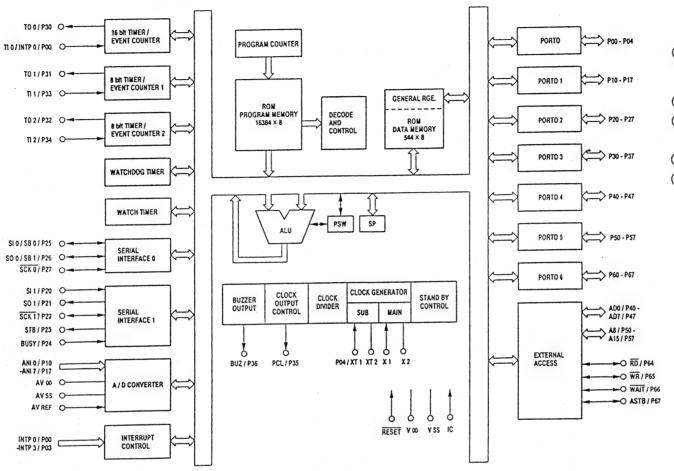
: ALR

RESISTOR METAL FILM :RN SOLID : RC : FPRD NONFLAMMABLE CARBON NONFLAMMABLE FUSIBLE : FUSE NONFLAMMABLE WIREWOUND :RW :RS NONFLAMMABLE METAL OXIDE NONFLAMMABLE CEMENT :RB MICRO INDUCTOR : LF-8L CAPACITOR :TA **TANTALUM** STYROL : PS :PP POLYPROPYLENE ·PT MYLAR METALIZED POLYESTER : MPS METALIZED POLYPROPYLENE : MPP : ALB **BIPOLAR** HIGH TEMPERATURE

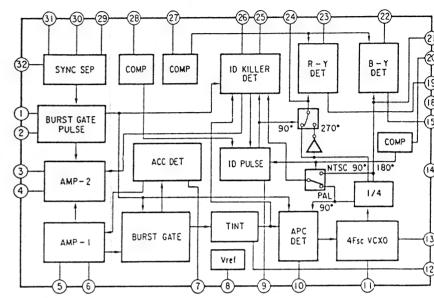
Note: Les composants identifiés par une trame et par une marque A sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié.

HIGH RIPPLE

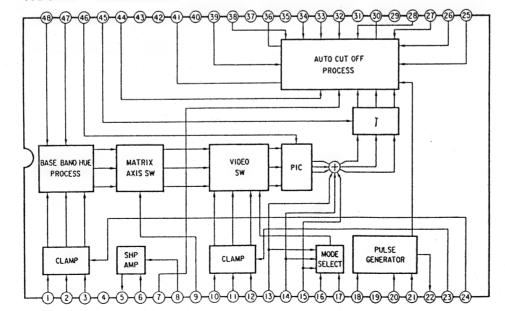
A BOARD IC101 μPD78013YCW



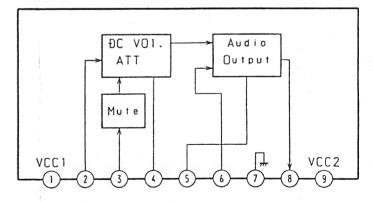
A BOARD IC305 M51279FP



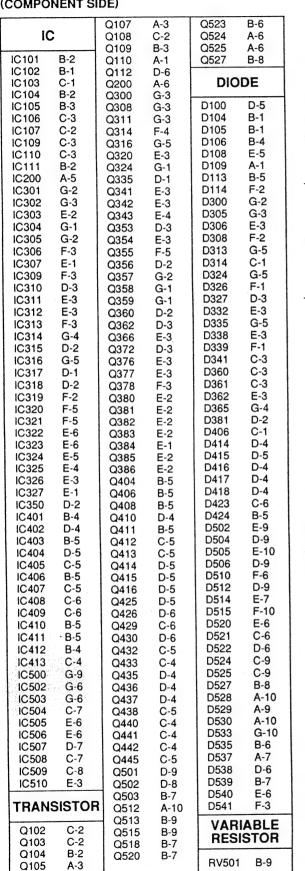
A BOARD IC404 CXA1478

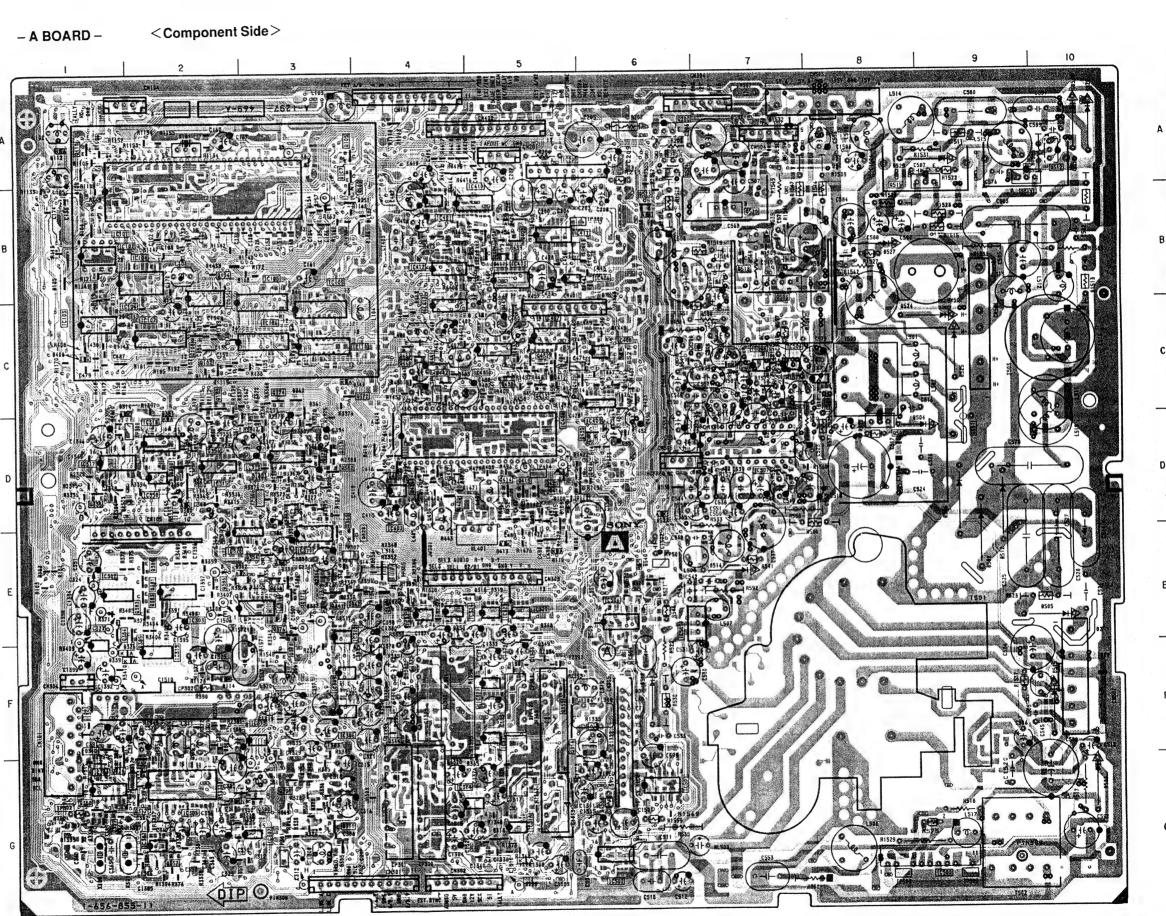


A BOARD IC200 AN5265



A BOARD (COMPONENT SIDE)

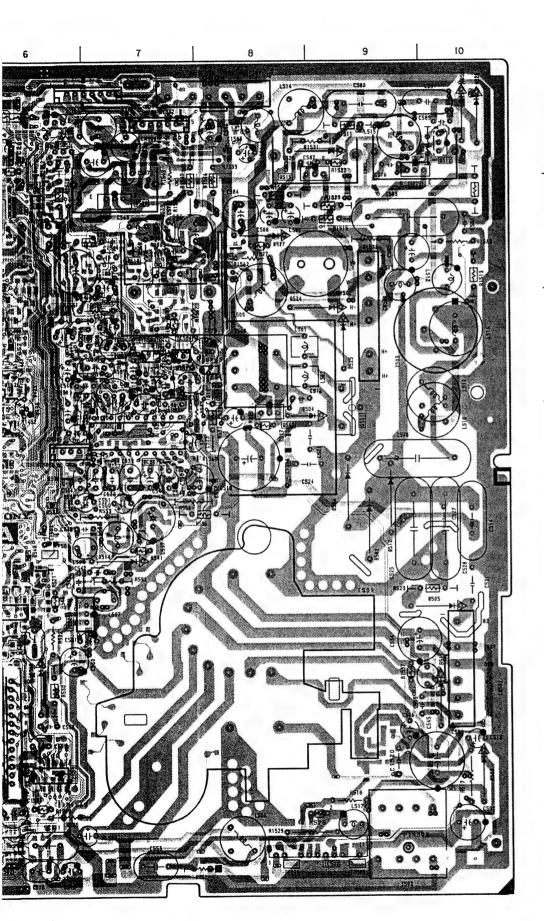


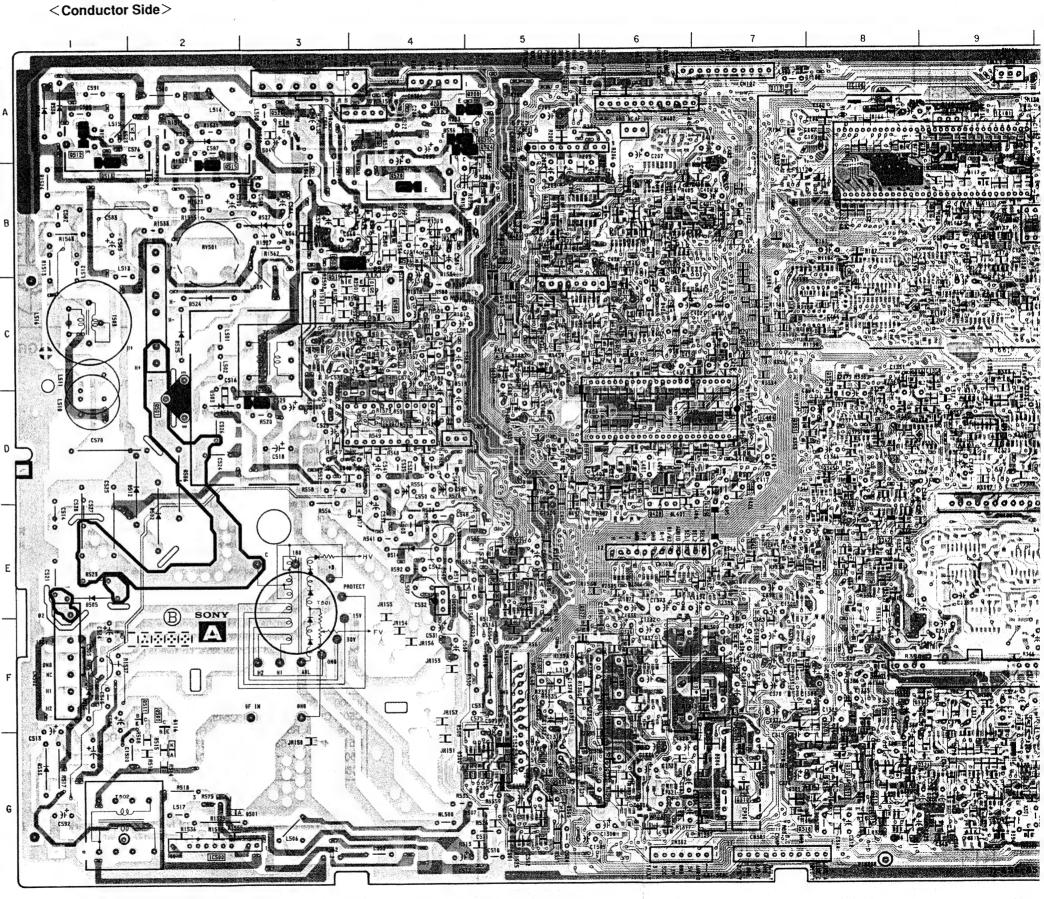


MICON, F ON SCRE VOL OFF

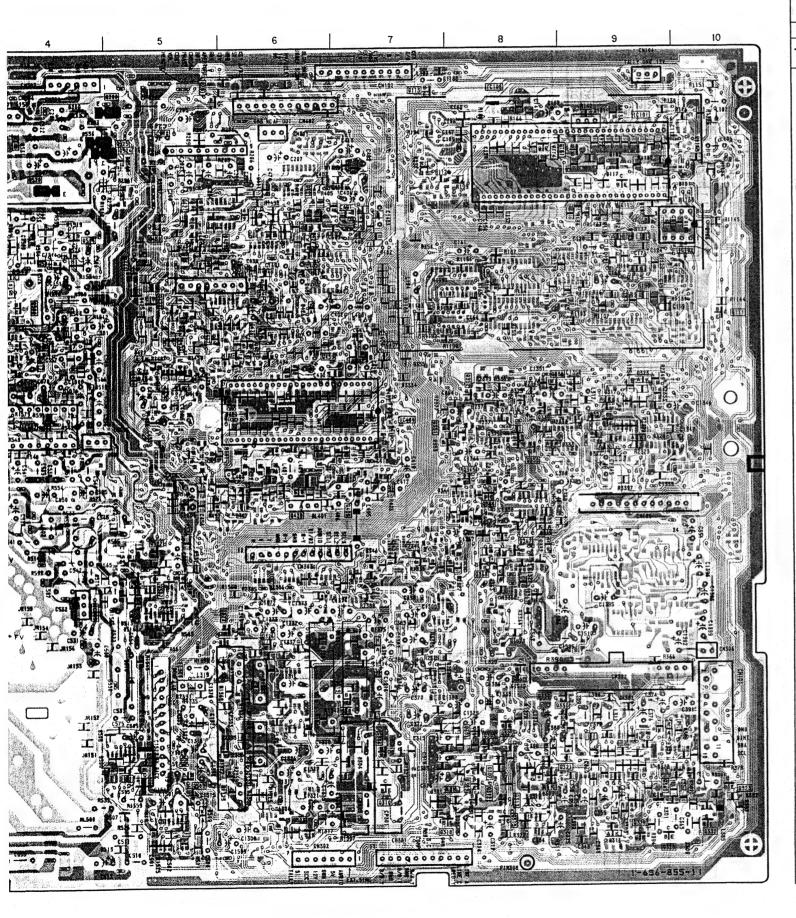
[H/V OUT, DEFLECTION SYSTEM, AUDIO OUT







H/V OUT, DEFLECTION SYSTEM, AUDIO OUT



A BOARD

BOAR	D CTOR SI		
I		Q508 Q509 Q510	C-4 G-5 C-4
IC108	A-8	Q511 Q514	F-2 B-4
	ISTOR	Q517 Q519	C-4 C-3
Q101 Q111	A-9 C-10	Q522 Q526	E-5 A-3
Q113 Q114 Q115	A-7 A-8 B-9	DIC	DE
Q201 Q301 Q302 Q303 Q305 Q306 Q307 Q309 Q310 Q312 Q313 Q315 Q318 Q321 Q322 Q323 Q325 Q326 Q327 Q328 Q329 Q330 Q331 Q332 Q333 Q335 Q351 Q352 Q361 Q363 Q364 Q367 Q368 Q369 Q401 Q402 Q403 Q405 Q407 Q409 Q417 Q418 Q419 Q420 Q421 Q422 Q423 Q424 Q428 Q431 Q424 Q428 Q431 Q434 Q439 Q444 Q500 Q505 Q506 Q507	A.F.G.G.G.G.G.G.G.G.G.F.G.G.G.F.F.F.G.G.F.F.G.D.C.D.D.D.C.F.G.D.E.E.B.B.B.C.C.D.C.B.C.C.B.B.C.C.D.B.C.C.C.B.F.E.B.E.B.B.B.C.C.D.C.B.C.C.B.B.C.C.D.B.C.C.C.B.F.E.B.E.B.B.B.C.C.D.C.B.C.C.B.B.C.C.D.B.C.C.C.B.F.E.B.E.B.B.B.C.C.D.C.B.C.C.B.B.C.C.D.B.C.C.C.B.F.E.B.E.B.B.B.C.C.D.C.B.C.C.B.B.C.C.D.B.C.C.C.B.F.E.B.E.B.B.B.C.C.D.C.B.C.C.B.B.C.C.D.B.C.C.B.F.E.B.E.B.B.B.C.C.D.C.B.C.C.B.B.C.C.D.B.C.C.B.F.E.B.E.B.B.B.C.C.D.C.B.C.C.B.B.C.C.D.B.C.C.B.F.E.B.B.E.B.B.B.C.C.D.C.B.C.C.B.B.C.C.D.B.C.C.B.F.E.B.B.E.B.B.B.C.C.D.C.B.C.C.B.B.C.C.D.B.C.C.B.B.C.B	D101 D102 D103 D107 D111 D115 D116 D200 D301 D302 D303 D304 D307 D310 D311 D315 D317 D320 D322 D323 D325 D333 D326 D344 D345 D346 D347 D363 D364 D401 D401 D401 D401 D401 D402 D405 D407 D408 D410 D411 D421 D422 D425 D426 D427 D500 D501 D503 D507 D508 D509 D513 D516 D517 D518 D519 D523 D526 D531 D532 D534 D536 D542	0.00

Note:

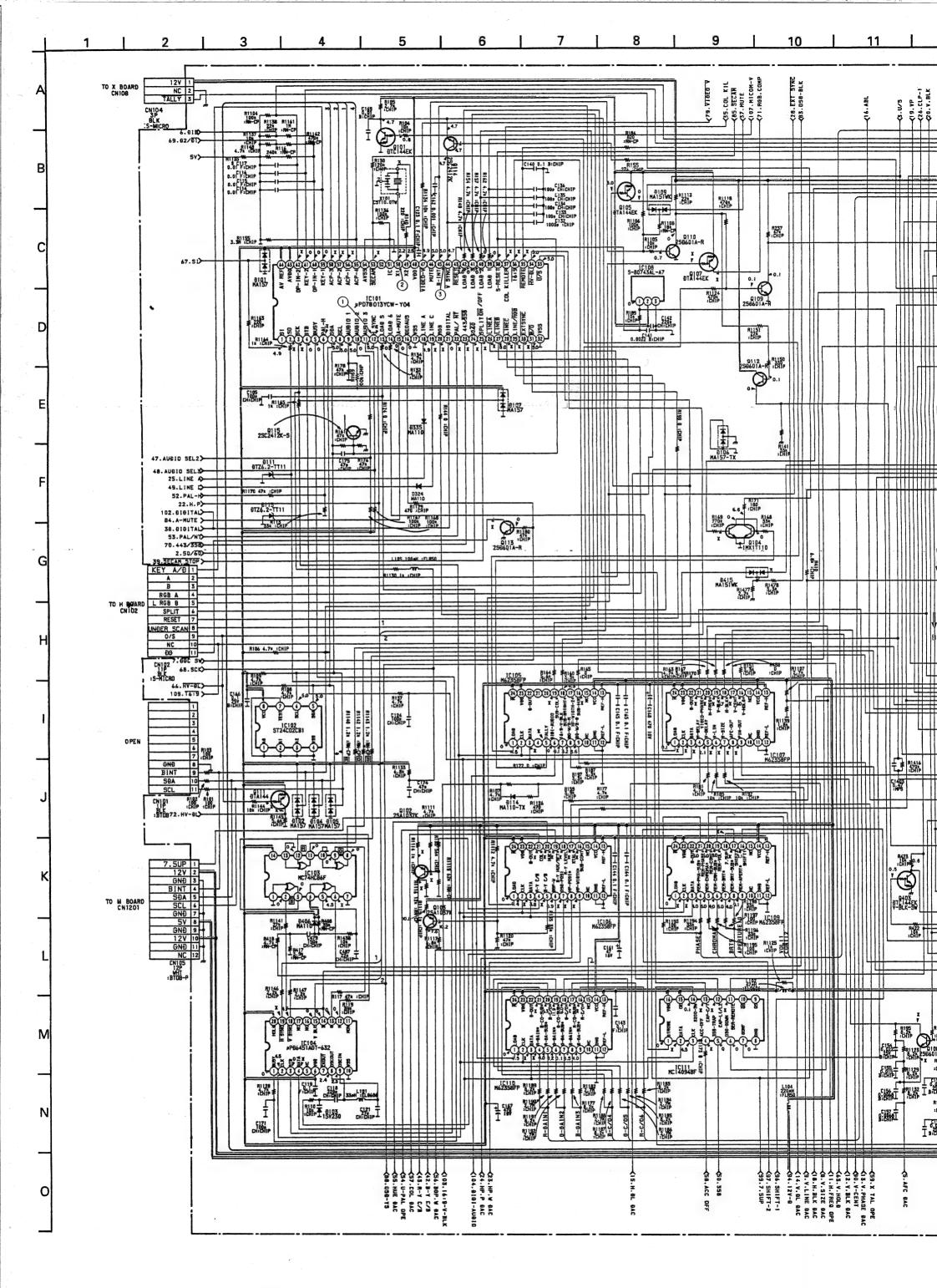
• Pattern from the side which enables seeing.

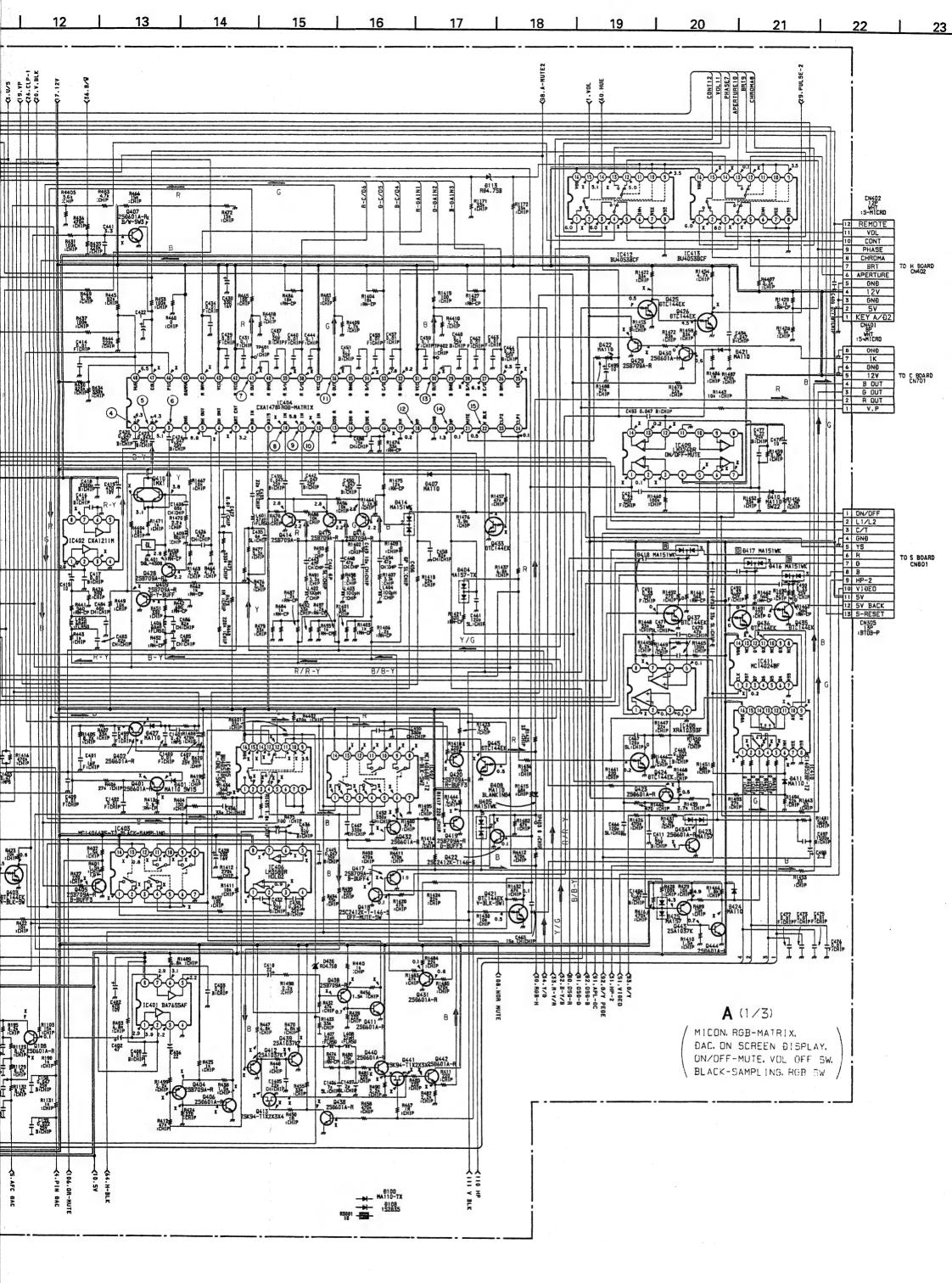
• : Pattern of the rear.

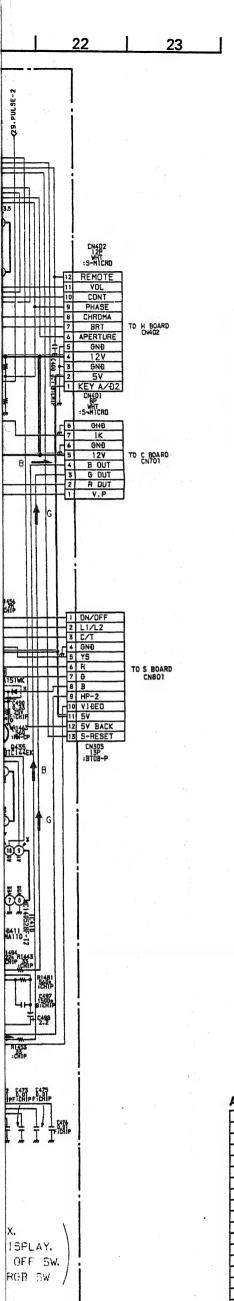


NOTE:

The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.







A (1/3) BOARD W	AVEFORMS	
5.0 Vp-p (H)	3.7 Vp-p (10MHz)	3 4.8 Vp-p (V)
4 Almfly	4 MTSC3.58 0.25 Vp-p (H)	3 My My
PAL 0.3 Vp-p (H)	5-V10E0 0.3 Vp-p(H)	O. 45 Vp-p (H)
S Mhoy Mhoy	(S) 	© ~~~~
итsc3.58 0.35 Vp-p (Н)	0.4 Vp-p(H)	0.48 Vp-p (H)
	© [© 1777!
1.9 Vp-p (H)	5-VIDED 0.57 Vp-p (H)	PAL 2.4 Vp-p (H)
7 	② 5-V10ED 1 Vp-p (H)	ANALDG ROB 2.9 Vp-p (H)
AMALOO RG9 0.6 Vp-p (H)	ANALOG PROB 0.6 Vp-p (H)	10 AMALOO ROS 0.6 Vp-p (H)
12.3 Vp-p(H)	(1)	3-V10E0 2.4 Vp-p (H)
1) ANALOG ROB 2.5 Vp-p (H)	4.6 Vp-p (V)	PAL 2.3 VP-P (H)
(3) []	(3) 2/10/20/10/20 3.4 VP-P (H)	13 ANALOG RGB 2.6 Vp-p (H)
13, , ,	(S)	

3.6 Vp-p (V)

A (1/3) BOARD * MARK

A (1/3)	(1/3) BOARD * MARK			
	PAL	NTSC 3.58	S-VIDEO	ANALOG RGB
IC101 ②	1.9	1.9	1.9	1.9
3	4.3	4.3	4.3	4.3
®	4.1	0	0	0
<u>@</u>	3.6	3.6	3.6	3.6
19	0	0	4.7	0
<u> </u>	0	0	0	4.7
2 2	4.9	0	0	0
8	4.8	0	0	0
8	4.8	4.8	4.7	4.7
8	0.1	0.1	4.9	4.8
20	4.8	4.8	4.8	0.1
29	4.8	4.8	4.8	0.1
99	4.8	4.8	4.8	0
89	3.4	3.4	3.4	3.4
- 8	0.7	0.6	0.8	0.9
<u> </u>	0	0	0	0
89	4.2	4.3	4.3	4.3
- 69	0	0	0	0
60	0	0	0	0
S	0	0	0	0
€	0	0	0	0
IC103 (6)	0.2	0.2	0	0
IC104 ①	2.3	2.2	2.0	2.3
1010	3.5	3.5	3.1	3.5
IC105 ③	2.3	2.2	0	2.3
(3)	0	0.1	11.8	0
180	2.6	2.7	2.8	2.6
100	5.4	5.4	6.6	8.1
IC106 ③	2.3	. 2.2	2.1	2.3
6	5.4	5.4	4.1	5.4
<u> </u>	2.4	2.4	0.6	2.4
<u> </u>	7.8	7.8	5.5	7.8
<u> </u>	5.1	5.1	10.0	5.1
⊕	3.1	10.5	10.9	10.5
(B)	2.4	2.1	2.1	3.2
100	6.3	11.9	10.7	3.7
89	3.6	4.8	4.3	9.5
3	0.8	0.4	2.4	3.1
IC107 @	4.6	4.5	4.4	4.5
3	2.3	2.2	2.1	0
0	2.8	2.8	3.3	2.8
0	1.5	1.4	2.3	1.4
0	2.9	2.9	2.1	2.9
<u> </u>	2.6	2.6	2.9	2.6
•	2.9	2.9	2.6	2.9
•	3.2	5.4	5.3	5.4
8	4.5	5.0	3.7	5.0
8	6.3	6.1	6.0	6.1
IC109 ②		4.5	4.4	4.4
3	2.3	2.2	2.1.	2.3
0	11.9	11.9	11.9	0.1
(9)	11.9	0.1	0.1	11.8
IC110 (3)	2.3	2.2	2.0	2.2
0	7.2	7.2	8.3	7.2
60	5.8	5.8	6.2	5.8
⊕	11.9	11.9	7.8	11.9
IC111 ②	2.3	7.9	7.8	7.9
(C111@)	0.3	0.3	2.0	0.3
0	0.2	0.1	0.1	0.3
₩	0.2	5.0	0	5.0
(1)	5.0	5.0	0	5.0
IC402 ②	3.1	2.9	3.0	3.6
3	0	2.3	2.2	2.2
Õ	2.9	2.9	2.9	2.9
IC403 ①		0.8	0.8	0
•	1.2	0.8	1.2	0.9
3	1.4	0.9	1.3	0
0	0.8	0.9	0.8	1.4
<u> </u>	0.6	0.6	0	0.6
0	0.5	0.6	0.6	0
0	1.0	1.0	0.8	1.1
<u> </u>	1.6	1.1	1.4	1.6
<u> </u>	0.9	1.0	0.8	1.5

	PAL	NTSC 3.58	S-VIDEO	ANALOG RGB
C404 ®	3.0	3.0	4.5	0
0	4.9	4.9	4.7	6.1
10	5.6	5.6	5.6	5.8
130	5.6	5.6	5.6	5.8
10	0	0	0	4.4
8	3.8	4.1	4.0	3.6
8	7.1	8.0	7.7	7.9
89	1.4	1.2	1.2	1.4
89	7.0	8.1	7.8	7.8
9	7.8	1.2	1.2 8.0	1.5
9	6.9	7.7	7.6	7.7
<u>6</u>	1.2	1.0	1.2	1.3
@	7.2	7.2	8.3	7.2
@	7.2	7.2	6.9	7.0
@	6.6	6.6	5.5	0
C405 ①	1.6	1.1	1.4	1.6
2	1.4	0.9	1.2	1.5
3	1.2	0.9	1.1	1.2
(1.4	1.0	1.2	1.4
6	1.3	1.0	1.2	1.4
100	0.5	0.6	0.3	0.2
•	0.5	0.6	0.3	0.2
@	1.2	0.8	1.2	1.3
(13)	1.4	0.9	1.3	1.4
•	1.2	0.8	1.2	1.3
(9)	1.4	1.0	1.2	1.5
IC406 ①	4.8	4.8	4.8	5.1
3	0.8	0.9	0.8	1.0
⑤	1.0	1.0	0.8	1.1
0	1.0	1.1	0.8	1.1
0	5.1	4.9	4.9	5.1
C407 ①	1.2	0.9	1.2	1.3
@	0.4	0.5	0.4	0.5
<u> </u>	0.6	0.7	1.2	0.7
<u> </u>	2.0	2.0	0.5 2.0	2.0
0	11.7	11.6	11.7	11.2
Õ	5.5	5.5	5.4	8.5
<u> </u>	5.5	5.5	5.4	8.4
®	1.4	1.0	1,2	1.5
•	0.6	0.7	0.5	0.6
1	2.0	2.0	2.0	2.0
69	2.0	2.0	2.0	2.0
C408 ①	3.1	2.9	3.7	3.4
0	4.1	3.9	4.2	4.1
IC409 ①	0	9.0	0	7.5
3	0	0.4	0.3	1.6
<u> </u>	5.9	6.3	5.9	5.9
0	5.9	6.3	5.9	5.9
0	5.9	6.3	5.9	5.9
@	0.1	0.5	0.1	10.7
1C410 (1)	3.8	6.6	0	10.7
10410 (0)	3.8	4.0	0	3.9
② ③		2.4	0	4.0
0	1.3 3.5	1.4	2.3	1.5
<u> </u>	0.6	3.0	3.9	3.9
0	4.0	4.0	0	0
Õ	0	1.9	2.5	1.4
•	2.0	2.3	1.8	3.0
IC411 ①	4.1	3.9	4.2	4.1
0	1.8	1.9	2.5	1.3
•	2.0	2.3	1.8	3.0
IC412 ③	0.4	0.4	5.9	0.6
0	8.9	8.9	8.9	8.3
(6)	9.0	9.0	8.9	8.3
13	6.0	6.0	6.0	0
(6)	0.4	0.4	5.9	0.5
IC413 ②	7.9	8.0	0	6.9
0	0	5.5	5.4	0
(3)	5.5	5.5	5.4	8.6
1	3.1	3.1	0	5.1
•	3.1	3.1	6.0	5.1
•	7.9	8.0	6.3	6.9
Q102 B	10.9	10.9	10.7	10.9
C	8.1	8.1	0	8.1

PA

Q401 B 1.
C 7.
E 1.
Q402 B 0.
C 9.
E 1.
Q404 B 5.
E 6.
Q405 B 1.
Q406 B 0.
C 11.
Q407 B 0
C 12.
Q408 B 5.
E 6.
Q408 B 1.
E 6.
Q408 B 1.
E 1.
Q411 C 1.
Q412 B 1.
E 2.
Q413 G 2.
Q418 C 2.
Q420 B 1.
E 1.
Q422 C 2.
Q420 B 1.
E 1.
Q422 C 2.
Q420 B 1.
E 1.
Q422 C 2.
Q420 B 1.
C 11
Q422 C 2.
Q428 B 0.
Q428 C 0.
Q428 B 0.
Q428 C 0.
Q428 B 0.
C 111
Q439 B 2.
C 3.
Q434 B 0.
C 3.
Q434 B 0.
C 3.
Q434 B 0.
C 3.
Q438 B 0.
C 3.
Q438 B 0.
C 11
Q439 B 2.
C 11
Q439 B 2.
C 11
Q439 B 2.
C 3.
Q434 B 0.
C 3.
Q434 B 1.
C 3.
Q434 B 0.
C 3.
Q444 C 1.
Q445 C 0.
Q444 C 1.
Q445 C 0.

Q444 C Q445 C

10.9 8.1 11.5 -0.2 0.1 5.0 2.6 2.6 4.9

0.4 4.0

0 11.3 0 5.0 0 2.9 2.9 4.9 0.4 3.8

8.1 11.5

5.0 0 2.6

2.6 5.0 0.4 4.1

Q104·1 B Q107 B

8.1 11.5

- 0.2 5.0 0 2.6 2.6

0 4.2

A (1/3) BOARD

3.5 Vp-p (H)

IC101	MICON	Q110	MUTE BUFFER	Q430	IK BLK	D404	SW
IC102	ECPROM	Q111	HV DC SW	Q431	RESET MUTE SW	D405	BLANKING
IC103	EX-OR	Q112	MUTE BUFFER	Q432	BRIGHT MUTE SW	D406	SW SLICE
IC104	ON SCREEN DISPLAY	Q113	DGC SW	Q433	RGB SW	D407	RGB SW
IC105	DAC 1	Q114	V SYNC AMP	Q434	MUTE RGB SW	D408	BLANKING
IC106	DAC 2	Q115	MIS ACTION PROTECT	Q435	OSD DOWN SW	D410	SW
IC107	DAC 4	Q401	BRIGHT ABL	Q436	OSD DOWN SW	D411	SW
IC108	MICON RESET	Q402	PIY ABL	Q437	OSD DOWN SW	D414	OSD MODE SW
IC109	DAC 5	Q403	V-BLK-SW	Q438	BLUE ONLY SW	D415	OSD BLK-INSERT
IC110	DAC 3	Q404	B/O G AMP 9	Q439	BCH B/O DLY-EQ 1	D416	OSD B MIX
IC111	EXP-OUT-PORI	Q405	B-BUFF 3	Q440	BCH B/O DLY-EQ 2	D417	OSD G MIX
IC401	BLUE-ONLY GAIN-CONT AMP	Q406	B/O G AMP 2	Q441	BCH B/O SW	D418	OSD R MIX
IC402	R-Y GAIN-CONT AMP	Q407	B/W-SW3	Q442	BCH BUFFER	D421	SW
IC403	BLACK-SAMPLING	Q408	B/O R AMP 1	Q443	AUTO CMROMA SET UP AMP 1	D422	SW
IC404	RGB-MATRIX	Q409	B-Y-BUFF	Q444	AUTO CMROMA SET UP AMP 2	D423	CLAMP
IC405	BL-ONLY-SW 1	Q410	Y BUFFER	Q445	BLUE ONLY SW	D424	PROTECT
IC406	HOLD 2	Q411	B/O R AMP 2			D425	CLAMP
IC407	H-BLK-SW 2	Q412	BCH BUFFER			D426	D. C. SHIFT
IC408	EDGE DETECT	Q413	BCH NORMAL SW	D100	<i>j</i> .	D427	PROTECT
IC409	ON/OFF-MUTE	Q414	R BUFFER	D101	PROTECT		
IC410	SIG SELECT	Q415	G BUFFER	D102	PROTECT	1	
IC411	COUNTER	Q416	B BUFFER	D103	OSP POSITION ADJ		
IC412	VOL OFF SW 4	Q417	B-BUFF	D104	PROTECT		
IC413	VOL OFF SW 2	Q418	OFF-MUTE-SW	D105	PROTECT	1	
		Q419	G-BUFF 3	D106			
		Q420	R-BUFF-3	D107	PROTECT	1	
Q101	V-BLK BUFFER	Q421	V-BLK-SW 1	D108		1	
Q102	R-Y C/B BUFFER	Q422	BLANKING	D109	MUTE		
Q103	B-Y C/B BUFFER	Q423	BLUE BUFFER	D111	PROTECT		
Q104	TALLY SW	Q424	BLK	D113	D. C. SHIFT	1	
Q105	U/C SW	Q425	V-P BUFFER 1	D114	SW	1	
Q107	RGB COMP	Q426	V-P BUFFER 2	D115	PROTECT	1	
Q108	V SHORT SW	Q428	SHARPNESS BUFFER	D335	SW	1	
Q109	RESET	Q429	IK BUFFER	D401	SW 15	1	

WAVEFORMS

VAVEFUNIVIS	
2 3.7 Vp-p (10MHz)	3 4.8 Vp-p(V)
4 ************************************	3 Mly Mly 100 100 100 100 100 100 100 100 100 10
5) 5-V10E0 0.4 Vp-p (H)	6 0.48 Vp-p(H)
S-YIDEO 0.57 Vp-p (H)	7 7 7 1 1 PAL 2.4 Vp-p (H)
7 	7 ANALDG RGB 2.9 Vp-p (H)
9 ANALOG ROS 0.6 Vp-p (H)	ANALOS ROB O. 6 Vp-p (H)
MTSC3.58 Vp-p (H)	1)
4.6 Vp-p (V)	PAL 2.3 Vp-p (H)
5-VIDEO 3.4 VP-P (H)	13
3.6 Vp-p(V)	

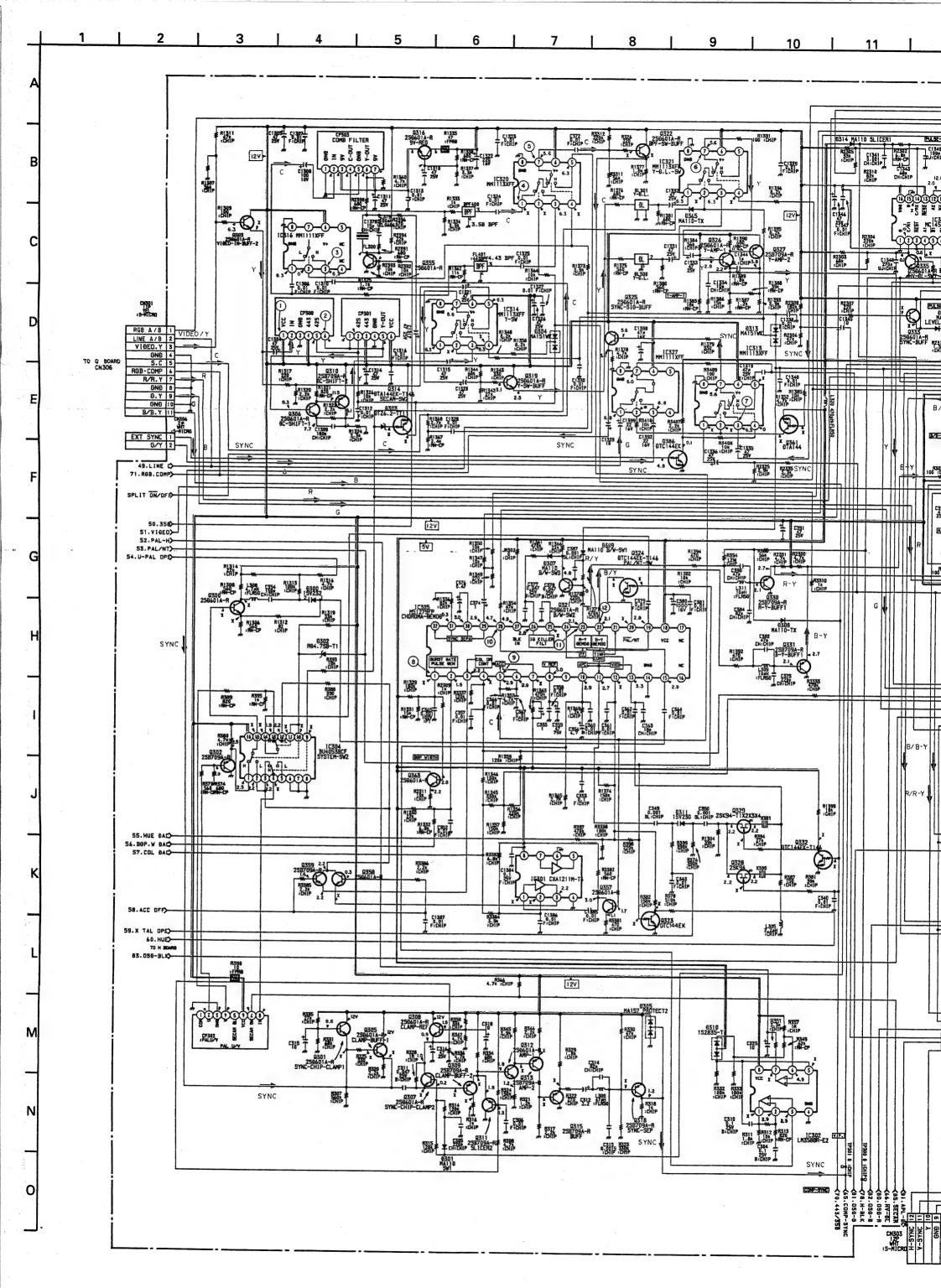
4 (1/3)	BOAF	RD *	MARK	
	PAL	NTSC 3.58	S-VIDEO	ANALOG RGB
IC101 ②	1.9	1.9	1.9	1.9
3	4.3	4.3	4.3	4.3
(6)	4.1	0	0	0
12	3.6	3.6	3.6	3.6
19	0	0	4.7	0
20	0	0	0	4.7
2	4.9	0	0	0
a	4.8	0	0	0
8	4.8	0	0	ō
8	4.8	4.8	4.7	4.7
3	0.1	0.1	4.9	4.8
28	4.8	4.8	4.8	0.1
29	4.8	4.8	4.8	0.1
8	4.8	4.8	4.8	0.1
(8)	3.4	3.4	3.4	3.4
8	0.7	0.6	0.8	0.9
9	0.7	0.0	0.5	0.5
69	4.2	4.3	4.3	4.3
89	0	0	0	0
68	0	0	0	0
9	0	0	0	0
9	0	0	0	0
€	0	0	0	0
IC103 ⑥	0.2	0.2	0	0
IC104 ①	2.3	2.2	2.0	2.3
19	3.5	3.5	3.1	3.5
IC105 ③	2.3	2.2	0	2.3
(5)	0	0.1	11.8	0
(6)	2.6	2.7	2.8	2.6
19	5.4	5.4	6.6	8.1
IC106 ③	2.3	- 2.2	2.1	2.3
6	5.4	5.4	4.1	5.4
0	2.4	2.4	0.6	2.4
0	7.8	7.8	5.5	7.8
ő	5.1	5.1	4.0	5.1
69	0.1	10.5	10.9	10.5
1	3.1			2.5
	2.4	2.6	2.7	3.2
(9)		2.1	2.1	
-	6.3	11.9	10.7	3.7
@	3.6	4.8	4.3	9.5
10107 (0)	0.8	0.4	2.4	3.1
IC107 @	4.6	4.5	4.4	0
<u> </u>	2.3	2.2	2.1	
<u> </u>	2.8	2.8	3.3	2.8
<u> </u>	1.5	1.4	2.3	1.4
<u> </u>	2.9	2.9	2.1	2.9
<u> </u>	2.6	2.6	2.9	2.6
<u> </u>	2.9	2.9	2.6	2.9
<u></u>	2.6	2.8	2.8	2.8
<u> </u>	3.2	5.4	5.3	5.4
<u> </u>	4.5	5.0	3.7	5.0
<u> </u>	6.3	6,1	6.0	6.1
IC109 @	4.6	4.5	4.4	4.4
3	2.3	2.2	2.1.	2.3
<u> </u>	11.9	11.9	11.9	0.1
<u>®</u>	11.9	0.1	0.1	11.8
IC110 ③	2.3	2.2	2.0	2.2
<u> </u>	7.2	7.2	8.3	7.2
<u>@</u>	5.8	5.8	6.2	5.8
<u></u>	11.9	11.9	7.8	11.9
<u> </u>	0	7.9	7.8	7.9
IC111 @	2.3	2.2	2.0	2.2
0	0.3	0.3	0	0.3
• •	0.2	0.1	0.1	0.1
(9)	0	5.0	0	5.0
(3)	5.0	5.0	0	5.0
IC402 @	3.1	2.9	3.0	3.6
3	0	2.3	2.2	2.2
0	2.9	-2.9	2.9	2.9
IC403 ①	0.8	0.8	0.8	0
®	1.2	0.8	1.2	0.9
3	1.4	0.9	1.3	0
0	0.8	0.9	0.8	1.4
		7		
<u> </u>	0.6	0.6	0	0.6
0	0.5	0.6	0.6	0
. 0	1.0	1.0	8.0	1.1
<u> </u>	1.6	1.1	1.4	1.6
199	1.4	1.0	1.2	1.5
9	0.9	0.6	0.8	0.6

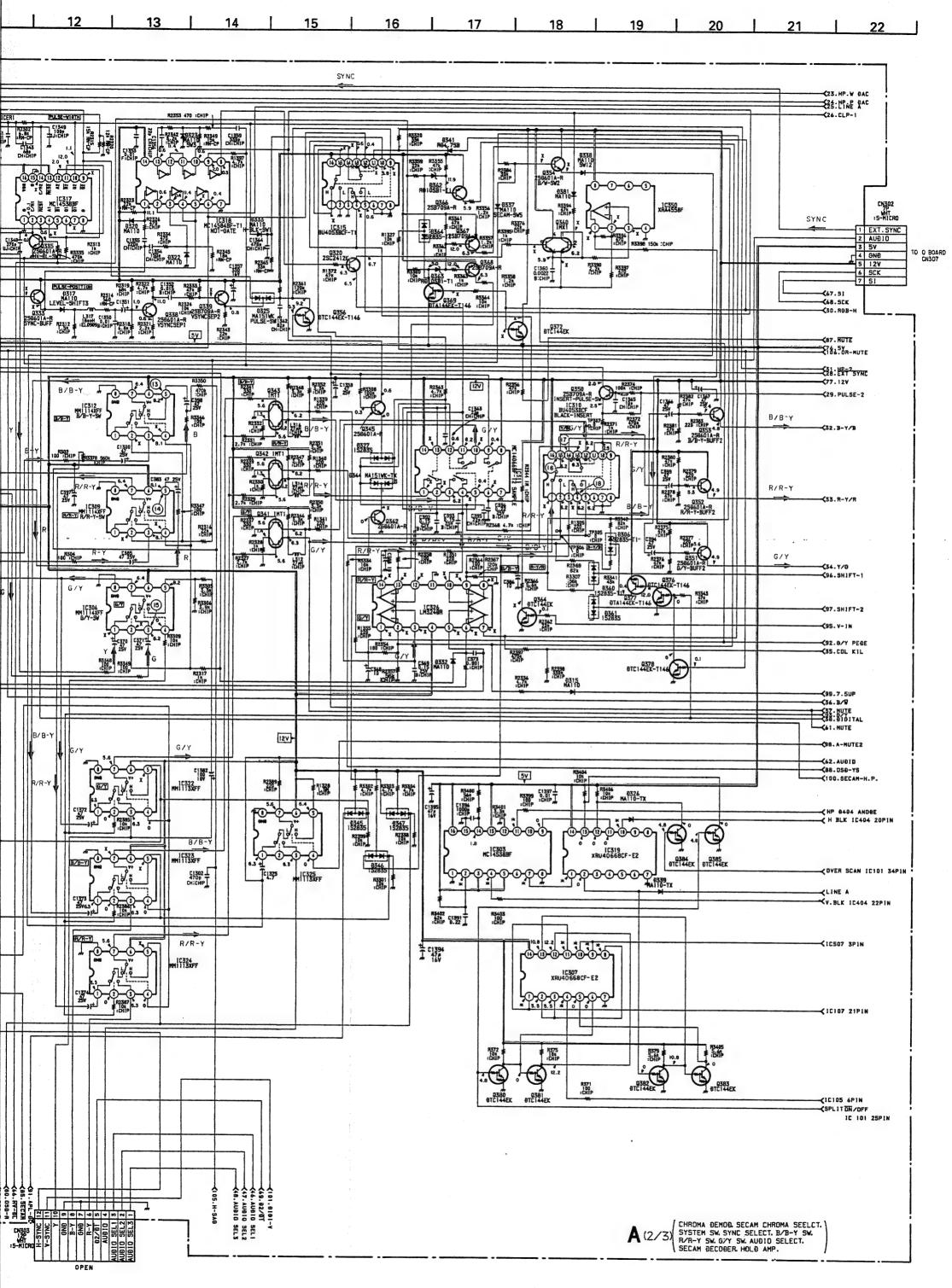
·	·			
	PAL	NTSC	S-VIDEO	ANALOG
IC404 (6)	3.0	3.58 3.0	4.5	RGB 0
9	4.9	4.9	4.7	6.1
100	5.6	5.6	5.6	5.8
(3)	5.6	5.6	5.6	5.8
(6)	0	0	0	4.4
8	3.8	4.1	4.0	3.6
89	7.1 1.4	8.0 1.2	7.7 1.2	7.9
8	7.0	8.1	7.8	7.8
8	1.4	1.2	1.2	1.5
(9)	7.8	7.7	8.0	7.7
®	6.9	7.8	7.6	7.6
<u>(1)</u>	1.2	1.0	1.2	1.3
(4)	7.2	7.2	8.3	7.2
8	7.2 6.6	7.2 6.6	6.9 5.5	7.0
IC405 ①	1.6	1.1	1.4	1.6
2	1.4	0.9	1.2	1.5
3	1.2	0.9	1.1	1.2
•	1.4	1.0	1.2	1.4
⑤	1.3	1.0	1.2	1.4
100	0.5	0.6	0.3	0.2
(1)	0.5	0.6	0.3	0.2
13	1.2	0.8	1.2	1.3
(9)	1.2	0.8	1.2	1.3
(9)	1.4	1.0	1.2	1.5
IC406 ①	4.8	4.8	4.8	5.1
3	0.8	0.9	0.8	1.0
<u> </u>	1.0	1.0	0.8	1.1
0	1.0	1.1	0.8	1.1
1C407 ①	5.1	0.9	4.9	5.1
(E)	0.4	0.5	0.4	0.5
3	1.4	1.0	1.2	1.4
O O	0.6	0.7	0.5	0.7
(3)	2.0	2.0	2.0	2.0
•	11.7	11.6	11.7	11.2
0	5.5	5.5	5.4	8.5
9	5.5	5.5	5.4	8.4
(9)	1.4	0.7	1.2	1.5 0.6
(9)	2.0	2.0	2.0	2.0
(8)	2.0	2.0	2.0	2.0
IC408 ①	3.1	2.9	3.7	3.4
0	4.1	3.9	4.2	4.1
IC409 ①	0	9.0	0	7.5
9	0	0.4	0.3	1.6
6		6.3	5.9	5.9
0	5.9	6.3	5.9 5.9	5.9 5.9
(Q	0.1	0.5	0.1	0
8		6.6	0	10.7
IC410 ①		4.0	0	3.9
@		2.4	0	4.0
3	1.3	1.4	2.3	1.5
<u>©</u>		3.0	3.9	3.9
<u>©</u>		1.1	3.1	1.7
<u>©</u>		4.0	2.5	14
<u>@</u>	-	2.3	1.8	3.0
IC411 ①		3.9	4.2	4.1
6		1.9	2.5	1.3
· ·	2.0	2.3	1.8	3.0
IC412 3		0.4	5.9	0.6
G		8.9	8.9	8.3
<u> </u>		9.0	8.9	8.3
<u> </u>		0.4	6.0 5.9	0.5
IC413 @		8.0	0	6.9
(5.5	5.4	0
(6	5.5	5.5	5.4	8.6
•		3.1	0	5.1
0		3.1	6.0	5.1
0103		8.0	6.3	6.9
Q102 E		8.1	10.7	10.9 8.1
	0.1	11.5	11.3	11.5
	115	1 11.0	0	-0.2
		-02		
	-0.2	- 0.2 5.0	5.0	0.1
Q104·1 E	3 -0.2 3 5.0			
Q104·1 E Q107 E	5.0 5.0	5.0 0 2.6	5.0 0 2.9	0.1 5.0 2.6
Q104·1 E Q107 E Q108 (3 -0.2 3 5.0 0 0 2 2.6 2 2.6	5.0 0 2.6 2.6	5.0 0 2.9 2.9	0.1 5.0 2.6 2.6
Q104·1 E Q107 E Q108 C	3 -0.2 3 5.0 6 0 2 2.6 5 2.6 3 5.0	5.0 0 2.6 2.6 0	5.0 0 2.9 2.9 4.9	0.1 5.0 2.6 2.6 4.9
Q104·1 E Q107 E Q108 C	3 -0.2 3 5.0 6 0 7 2.6 8 5.0 6 0.4	5.0 0 2.6 2.6	5.0 0 2.9 2.9	0.1 5.0 2.6 2.6

1	PAL	NTSC	S-VIDEO	ANALOG
		3.58		RGB
Q401 B	1.1	1.5	1.2	1.0
C	7.5	6.0	8.4	10.0
E	1.4	3.2	3.1	1.0
Q402 B	0.5	0.5	2.4	0.5
<u> </u>	9.5	8.1	10.4	6.9
E	1.4	3.2	3.2	1.0
Q404 B	5.3	4.9	5.3	5.2
E	6.1	6.0	6.1	6.2
Q405 B	1.3	1.2	1.2	1.4
Q406 B	0.7	0	0.7	0.7
C	1.6	1.0	1.4	1.6
Q407 B	0	0	0	0.6
С	6.6	6.6	5.4	0
Q408 B	5.3	4.9	5.2	5.2
E	6.0	5.9	6.0	6.1
Q409 B	1.9	1.6	1.7	1.6
E	2.0	2.2	2.3	2.2
Q411 C	1.4	0.9	1.3	1.4
Q412 B	1.3	1.0	1.1	1.4
Е	2.0	1.7	1.8	2.0
Q413 G	2.0	1.6	1.8	-2.1
D	2.0	- 4.3	2.2	2.0
S	2.0	1.7	1.8	2.0
Q417 B	1.4	1.2	1.2	1.4
Q418 C	2.1	1.7	1.7	2.0
Q419 B	1.4	1.2	1.2	1.5
E	2.0	1.7	1.8	2.0
Q420 B	1.2	1.0	1.2	1.3
E	1.8	1.6	1.8	1.9
Q422 C	2.1	1.7	1.8	2.0
Q423 B	0.5	0.4	0.4	0.2
Q425 C	4.5	4.5	4.7	4.5
Q426 C	0.8	0.7	0.7	0
Q429 B	0.1	0.4	0.1	0.1
E	0	- 1.2	0.4	0.4
Q432 B	-0.3	- 3.4	-0.1	- 3.9
C	11.9	11.8	120	11.6
Q433 B	0	0	0	2.7
C	3.0	3.0	4.5	0
Q434 B	-0.1	0	-0.1	0.4
C	3.6	4.5	2.9	0
Q438 B	-0.4	-3.1	0	-2.4
C	11.7	11.7	11.6	11.7
Q439 B	2.0	1.8	1.8	2.0
E	2.6	2.4	0	2.6
Q440 B	2.6	2.5	2.4	2.7
Q441 G	-1.1	1.7	0	-0.7
D	2.0	-8.1	1.8	2.0
S	2.0	1.6	1.8	2.0
Q442 B	1.3	1.1	1.1	2.1
E	0.9	0.7	0.7	1.5
Q444 C	1.2	1.2	2.2	1.3
Q445 C	0.4	1.4	0.3	0.4
C+++0 C	0.7	1	0.0	1 0.4

				\$,		
	Q110	MUTE BUFFER	Q430	IK BLK	D404	SW
	Q111	HV DC SW	Q431	RESET MUTE SW	D405	BLANKING
	Q112	MUTE BUFFER	Q432	BRIGHT MUTE SW	D406	SW SLICE
AY	Q113	DGC SW	Q433	RGB SW	D407	RGB SW
	Q114	V SYNC AMP	Q434	MUTE RGB SW	D408	BLANKING
	Q115	MIS ACTION PROTECT	Q435	OSD DOWN SW	D410	SW
	Q401	BRIGHT ABL	Q436	OSD DOWN SW	D411	SW
	Q402	PIY ABL	Q437	OSD DOWN SW	D414	OSD MODE SW
	Q403	V-BLK-SW	Q438	BLUE ONLY SW	D415	OSD BLK-INSERT
	Q404	B/O G AMP 9	Q439	BCH B/O DLY-EQ 1	D416	OSD B MIX
	Q405	B-BUFF 3	Q440	BCH B/O DLY-EQ 2	D417	OSD G MIX
ONT AMP	Q406	B/O G AMP 2	Q441	BCH B/O SW	D418	OSD R MIX
P	Q407	B/W-SW3	Q442	BCH BUFFER	D421	SW
	Q408	B/O R AMP 1	Q443	AUTO CMROMA SET UP AMP 1	D422	SW
	Q409	B-Y-BUFF	Q444	AUTO CMROMA SET UP AMP 2	D423	CLAMP
***************************************	Q410	Y BUFFER	Q445	BLUE ONLY SW	D424	PROTECT
	Q411	B/O R AMP 2			D425	CLAMP
	Q412	BCH BUFFER			D426	D. C. SHIFT
	Q413	BCH NORMAL SW	D100	1	D427	PROTECT
	Q414	R BUFFER	D101	PROTECT		
	Q415	G BUFFER	D102	PROTECT	1	
	Q416	B BUFFER	D103	OSP POSITION ADJ	1	
	Q417	B-BUFF	D104	PROTECT	1	
	Q418	OFF-MUTE-SW	D105	PROTECT	1	
	Q419	G-BUFF 3	D106		1	
	Q420	R-BUFF-3	D107	PROTECT	1	
	Q421	V-BLK-SW 1	D108		1	
***************************************	Q422	BLANKING	D109	MUTE	1	
	Q423	BLUE BUFFER	D111	PROTECT	1	
	Q424	BLK	D113	D. C. SHIFT	1	
	Q425	V-P BUFFER 1	D114	SW	1	
7 6	Q426	V-P BUFFER 2	D115	PROTECT	1	
	Q428	SHARPNESS BUFFER	D335	SW	1	
	Q429	IK BUFFER	D401	SW 15	1	

Schematic diagram





A (2/3) BOARD WAVEFORMS

A (2/3) BOARD WA	VEFORMS	
①	1	2
	" Carlo	Showing
1.0 Vp-p(H)	0.94 Vp-p(H)	0.85 Vp-p (H)
2	3	(
Menter Property	Brieff Brief	
5-VIDED 0.94 Vp-p (H)	0.6 Vp-p (H)	0.2 Vp-p (H)
4	(5)	5
	B-11 COLOR 11 COLOR 1	NTSC3,58 O. 24 Vp-p (H)
0.24 Vp-p(H)	O. 23 Vp-p (H)	0.24 Vp-p (H) s-viago 0.25 Vp-p (H)
(a)	(P)	© 757
PAL 77 V / U)	ит <u>я</u> сз.58	S-VIDED
0.3/ VP-P(H)	0.33 Vp-p (H)	0.4 Vp-p(H)
	®	9
ANALDO ROB 1.9 Vp-p (H)	1.0 Vp-p(H)	PAL 0.26 Vp-p (H)
9	9	(0)
B CONTRACTOR		
NTSC3.58 0.23 Vp-p (H)	3-VIDED 0.25 Vp-p (H)	5.4 Vp-p(H)
Mr. About All	The same said	5.4 Vp-p (H)
NTSC3.58 0.23 Vp-p(H)	3-Y10E0 0.25 Vp-p(H)	
NTSC3.58 0.23 Vp-p(H)	3-YIDED 0.25 Vp-p (H)	
1) Hall	3-Y10E0 0.25 Vp-p(H)	PALO . 7 VP - P (H)
NTSC3.58 0.23 Vp-p(H)	3-VIDED 0.25 Vp-p (H) 11 NTSC3.58 5-VIDED 1.0 Vp-p (H)	PAL O. 7 Vp-p (H) NTSC3.59 0.75 Vp-p (H)
N1963.58 0.23 Vp-p(H)	3-VIDED 0.25 Vp-p (H) 11 NTSC3.58 5-VIDED 1.0 Vp-p (H)	PALO. 7 Vp-p (H) NTSC3.59 0.75 Vp-p (H)
PAL . 85 Vp-p (H) 10 10 10 10 10 10 10 10 10 1	3-VIDED 0.25 Vp-p(H) 11 MTSC3.5B S-VIDED 1.0 Vp-p(H)	PALO.7 Vp-p (H) NTSC3.59 0.75 Vp-p (H)
PAL .85 Vp-p (H) (1)	3-YIDED 0.25 VP-P(H) 11 ***TIDED ***T	PALO. 7 Vp-p (H) 0.75 Vp-p (H) ANALOS ROB 0.7 Vp-p (H)
PAL 85 Vp-p (H) (1) PAL 85 Vp-p (H) (2) 3-V10ED 0.75 Vp-p (H)	3-Y10ED 0.25 Vp-p(H) 11 MTSC3.5B S-V10ED 1.0 Vp-p(H) 13 ANALDO ROB 0.7 Vp-p(H)	PALO. 7 Vp-p (H) NTSC3.59 0.75 Vp-p (H) ANALOS FOR 0.7 Vp-p (H)
PAL .85 Vp-p (H) (1) (2) 3-V10ED 0.75 Vp-p (H) (3) ANALOO ROB 0.7 Vp-p (H)	3-YIDED 0.25 VP-P(H) 11 ***TIDED ***T	PALO. 7 Vp-p (H) NTSC3.59 0.75 Vp-p (H) ANALOO RGB 0.7 Vp-p (H) ANALOO RGB 1.4 Vp-p (H)
PAL .85 Vp-p (H) (1) (2) (3) (3) (4) (5) (7) (7) (7) (7) (7) (7) (7	3-YIDED O. 25 VP-P (H) 11 HT HISC3.5B S-VIDED VP-P (H) ANALDO ROB O. 7 VP-P (H) 13 S-VIDEO VP-P (H) 15 S-VIDEO VP-P (H)	PALO. 7 Vp-p (H) NYSC3.59 0.75 Vp-p (H) ANALOS RGB 0.7 Vp-p (H) ANALOS RGB 1.4 Vp-p (H) 18 ANALOS RGB 1.4 Vp-p (H)
PAL .85 Vp-p (H) (1) (2) 3-V10ED 0.75 Vp-p (H) (3) ANALOO ROB 0.7 Vp-p (H)	3-Y10ED O. 25 VP-P (H) 11 +	PALO. 7 Vp-p (H) NTSC3.59 0.75 Vp-p (H) ANALOO RGB 0.7 Vp-p (H) ANALOO RGB 1.4 Vp-p (H)
PAL .85 Vp-p (H) (1) (2) (3) (3) (4) (5) (7) (7) (7) (7) (7) (7) (7	3-Y10ED O. 25 Vp-p(H) 11 12 13 ANALDO ROB O. 7 Vp-p(H) 13 S-Y10EQ S-Y10EQ S-Y10EQ ANALDO ROB	PALO. 7 Vp-p (H) NYSC3.59 0.75 Vp-p (H) ANALOS RGB 0.7 Vp-p (H) ANALOS RGB 1.4 Vp-p (H) 18 ANALOS RGB 1.4 Vp-p (H)
PAL 85 Vp-p (H) O. 23 Vp-p (H) O. 85 Vp-p (H) O. 75 Vp-p (H) ANALOG ROB O. 7 Vp-p (H) S-V10ED	3-Y10ED O. 25 Vp-p(H) 11 12 13 ANALDO ROB O. 7 Vp-p(H) 13 S-Y10EQ S-Y10EQ S-Y10EQ ANALDO ROB	PALO. 7 Vp-p (H) NYSC3.59 0.75 Vp-p (H) ANALOS RGB 0.7 Vp-p (H) ANALOS RGB 1.4 Vp-p (H) 18 ANALOS RGB 1.4 Vp-p (H)

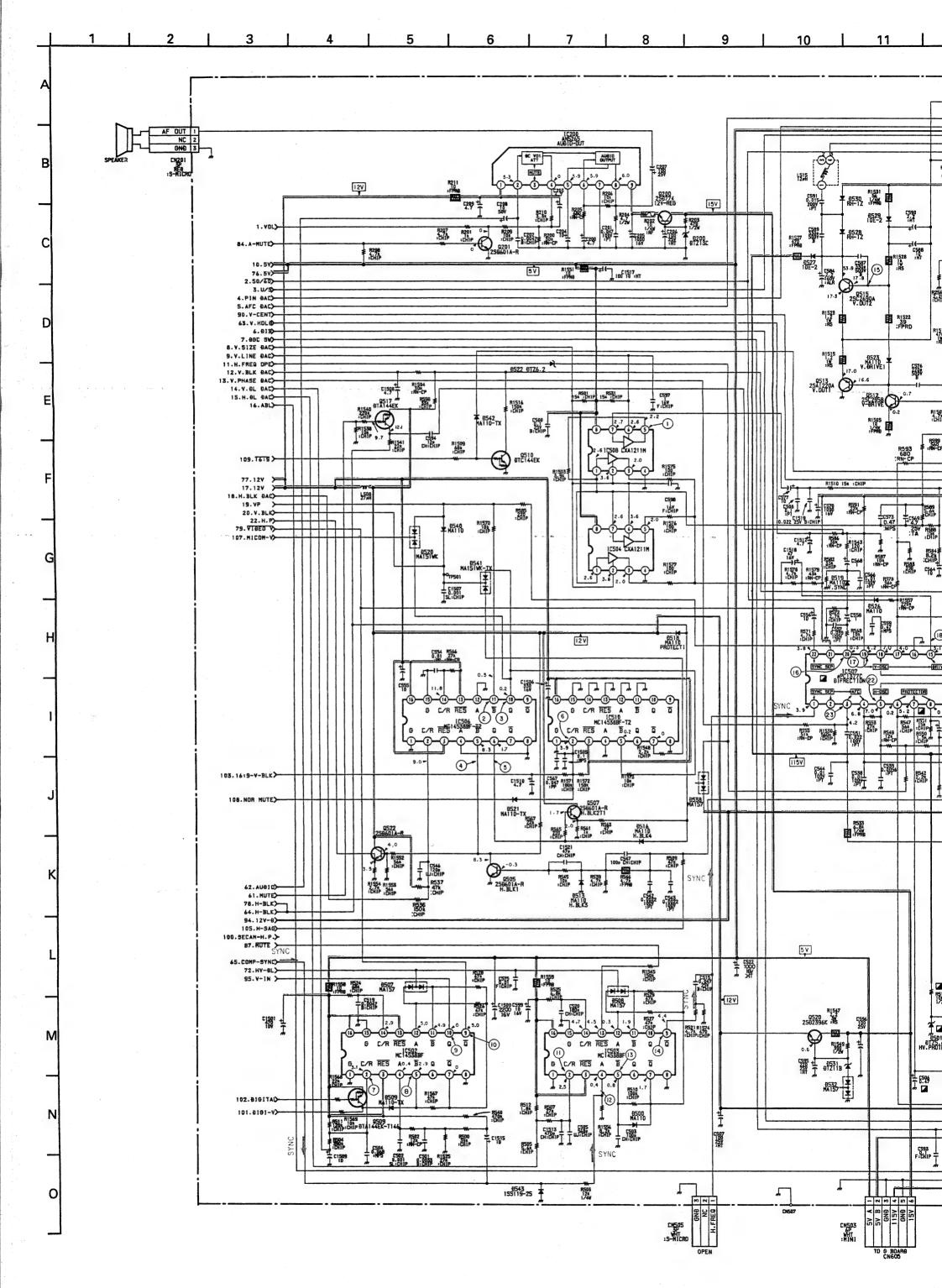
A (2/3) BOARD * MARK

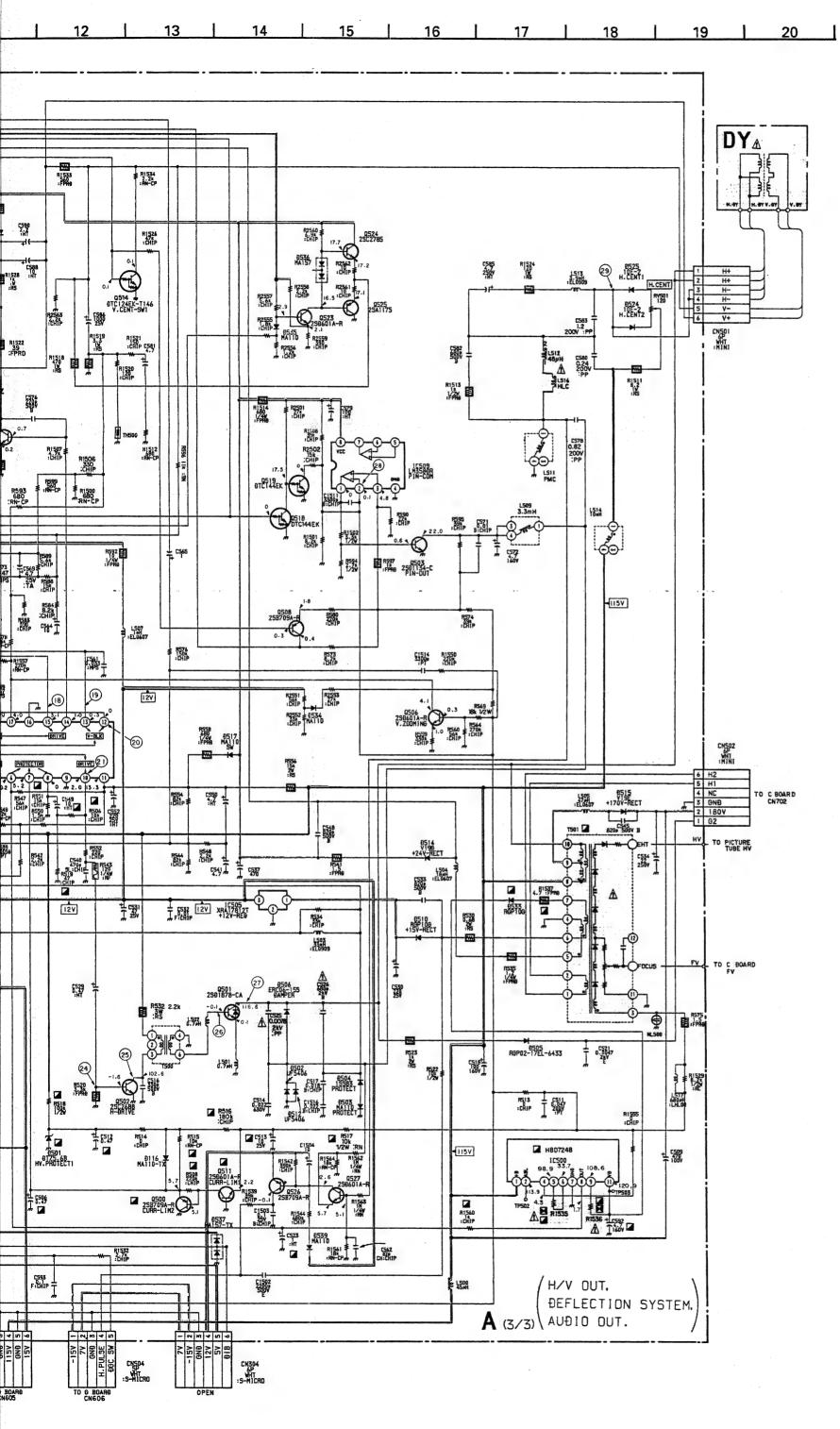
A (2/3)	BOAL	* OF	MARK	
	PAL	NTSC	S-VIDEO	ANALOG
IC301 ①	2.8	3.58 2.8	3.0	2.3
(D)	2.0	1.8	1.7	3.5
IC302 ①	2.9	2.9	2.9	2.9
6	5.3	4.5	4.5	4.5
0	10.5	0	0	0
IC303 ②	2.2	2.0	2.0	2.0
0	0.6 1.0	0.5	0.5 0.5	0.5
6	0.2	0.2	0.3	0.3
IC304 ①	2.2	2.2	2.2	2.2
0	9.4	9.4	9.4	9.4
100	7.3	2.5	2.6	2.5
<u>@</u>	7.3	2.5	2.6	2.5
9	1.9	2.2	2.2	2.2
IC305 ①	2.5	2.8	2.3	2.2
0	2.5	2.5	2.4	1.3
0	4.1	4.1	4.2	4.5
0	0.4	0	0	0.1
1	2.6	2.5	2.5	2.7
8	0	0.8	0.9	0.9
IC306 ①	2.1 8.1	1.9 8.1	1,9 8.1	2.7
<u> </u>	0	0	0.1	4.4
IC307 ①	4.2	5.5	5.5	5.5
•	4.4	5.7	5.7	5.7
0	4.2	5.5	5.5	5.5
<u> </u>	4.2	5.5	5.5	5.5
69	4.2	5.5 5.5	5.5 5.5	5.5 5.5
IC309 ②	3.6	3.6	3.6	3.6
0	0	0	0	4.4
IC310 ①	6.2	6.2	6.2	5.9
9	6.3	6.2	6.2	5.9
IC311 ①	5.9 0	6.0	6.2	5.9 6.2
<u> </u>	6.2	6.2	6.2	5.9
Ø	6.2	5.3	6.2	5.9
•	3.3	2.9	2.9	0
€	5.9	5.9	5.8	5.9
10313 (6)	0.4	0.4	0.5	3.6
IC312 ②	3.6	3.6	3.6 0.1	4.5
IC313 ①	0	0	6.3	6.3
IC314 ②	0	7.6	3.0	0
0	0	0	2.9	0.1
IC315 ①	0,4	0.4	0.4	0.6
<u> </u>	9.4	9.3	9.3	9.4
9	2.5	2.5	2.5	7.2
(9)	0.4	0.4	0.4	0.6
(9)	0.4	0.4	0.4	0.6
IC317 ①		2.0	2.0	12.0
. 0		12.0	12.0	12.0
9	10.7 9.4	9.4	9.1	9.4
IC318 ®		0	11.4	11.4
IC319 ①	1.0	0.4	0.5	0.2
1	0.6	0.5	0.4	0.5
IC320 ①	6.3	6.3	6.3	0
0		1 0	3.3	0
IC321 ②			1 3.3	0
	0	0 1		
(4)	0	0.1	2.9	2.7
IC322 ⑥	0			2.7 5.9
IC322 ⑥ IC323 ⑥	0 0 5.8 6.2	0.1 0 6.0 6.2	2.9 0.1 5.9 6.2	2.7 5.9 5.9
IC322 ⑤ IC323 ⑥ ⑦	0 0 5.8 6.2 0	0.1 0 6.0 6.2 5.6	2.9 0.1 5.9 6.2 5.6	2.7 5.9 5.9 5.6
IC322 (§) IC323 (§) (C324 (§)	0 0 5.8 6.2 0 6.2	0.1 0 6.0 6.2 5.6 6.2	2.9 0.1 5.9 6.2 5.6 6.2	2.7 5.9 5.9 5.6 5.9
IC322 ⑥ IC323 ⑥ ① IC324 ⑥ IC326 ①	0 0 5.8 6.2 0 6.2 5.9	0.1 0 6.0 6.2 5.6 6.2 6.0	2.9 0.1 5.9 6.2 5.6 6.2 5.9	2.7 5.9 5.9 5.6 5.9 5.9
IC322 (§) IC323 (§) (C324 (§)	0 0 5.8 6.2 0 6.2 5.9	0.1 0 6.0 6.2 5.6 6.2	2.9 0.1 5.9 6.2 5.6 6.2	2.7 5.9 5.9 5.6 5.9
IC322 (§) IC323 (§) IC324 (§) IC326 (①)	0 0 5.8 6.2 0 6.2 5.9 5.9	0.1 0 6.0 6.2 5.6 6.2 6.0 5.9	2.9 0.1 5.9 6.2 5.6 6.2 5.9 5.8	2.7 5.9 5.9 5.6 5.9 5.9
IC322 (§) IC323 (§) IC324 (§) IC326 (Q) (§) (§)	0 0 5.8 6.2 0 6.2 5.9 5.9 5.9 1.7 2.4	0.1 0 6.0 6.2 5.6 6.2 6.0 5.9 5.9 1.6 2.3	2.9 0.1 5.9 6.2 5.6 6.2 5.9 5.8 2.1 2.3	2.7 5.9 5.6 5.9 5.9 5.9 5.9 5.9 4.6
IC322 (0) IC323 (0) IC324 (0) IC326 (0) (0) (0) (0) (0) (0) (0) (0) (0) (0)	0 0 5.8 6.2 0 6.2 5.9 5.9 5.9 1.7 2.4	0.1 0 6.0 6.2 5.6 6.2 6.0 5.9 5.9 1.6 2.3	2.9 0.1 5.9 6.2 5.6 6.2 5.9 5.8 5.8 2.1 2.3 -0.1	2.7 5.9 5.6 5.9 5.9 5.9 5.9 5.9 2.1 4.6
IC322 ® IC323 ® IC324 ® IC324 ® IC326 © ® ® ® © © © © © © © © © © © © © © ©	0 0 5.8 6.2 0 6.2 5.9 5.9 5.9 1.7 2.4 0 6.3	0.1 0 6.0 6.2 5.6 6.2 6.0 5.9 5.9 1.6 2.3	2.9 0.1 5.9 6.2 5.6 6.2 5.9 5.8 5.8 2.1 2.3 -0.1 6.2	2.7 5.9 5.9 5.6 5.9 5.9 5.9 5.9 2.1 4.6 0
IC322 ® IC323 ® IC324 ® IC324 ® IC326 © ® IC326 © ® © ® IC326 © © ® IC326 © © © © © © © © © © © © © © © © © © ©	0 0 5.8 6.2 0 6.2 5.9 5.9 5.9 1.7 2.4 0 6.3 6.3	0.1 0 6.0 6.2 5.6 6.2 6.0 5.9 1.6 2.3 10.8 6.3 6.3	2.9 0.1 5.9 6.2 5.6 6.2 5.9 5.8 5.8 2.1 2.3 -0.1 6.2 6.2	2.7 5.9 5.9 5.6 5.9 5.9 5.9 5.9 2.1 4.6 0 5.9
IC322 ® IC323 ® IC324 ® IC324 ® IC326 © ® ® ® © © © © © © © © © © © © © © ©	0 0 5.8 6.2 0 6.2 5.9 5.9 1.7 2.4 0 6.3 6.3	0.1 0 6.0 6.2 5.6 6.2 6.0 5.9 5.9 1.6 2.3	2.9 0.1 5.9 6.2 5.6 6.2 5.9 5.8 5.8 2.1 2.3 -0.1 6.2	2.7 5.9 5.9 5.6 5.9 5.9 5.9 5.9 2.1 4.6 0
IC322 ® IC323 ® IC323 ® IC324 ® IC324 © IC326	0 0 5.8 6.2 0 6.2 5.9 5.9 5.9 1.7 2.4 0 6.3 6.3 6.3 6.2	0.1 0 6.0 6.2 5.6 6.2 6.0 5.9 1.6 2.3 10.8 6.3 6.3	2.9 0.1 5.9 6.2 5.6 6.2 5.9 5.8 2.1 2.3 -0.1 6.2 6.2 6.2	2.7 5.9 5.9 5.6 5.9 5.9 5.9 5.9 2.1 4.6 0 5.9 5.9 5.9
IC322 ® IC323 ® O IC324 ® IC326 O IC32	0 0 5.8 6.2 0 6.2 5.9 5.9 1.7 2.4 0 6.3 6.3 6.3 6.2 6.2	0.1 0 6.0 6.2 5.6 6.2 6.0 5.9 1.6 2.3 10.8 6.3 6.2 6.2	2.9 0.1 5.9 6.2 5.6 6.2 5.9 5.8 2.1 2.3 -0.1 6.2 6.2 6.2	2.7 5.9 5.6 5.9 5.9 5.9 5.9 2.1 4.6 0 5.9 5.9 5.9

		NTSC		ANALOG
	PAL	3.58	S-VIDEO	RGB
Q300 B	2.5	2.2	2.2	2.2
С	10.2	10.4	10.4	10.5
Ε	1.9	1.6	1.6	1.6
Q301 E	8.6	8.2	8.5	9.8
Q303 E	5.7	5.7	5.5	5.7
Q304 B	6.3	6.3	6.2	6.3
E	5.7	5.7	5.5	5.7
Q305 B	8.6	8.2	8.5	9.8
E	7.9	7.6	7.9	9.1
Q307 E	1.4	1.1	1.4	2.7
Q309 B	1.4	1.1	1.4	2.6
C	0.1	0.2	0.1	0
E	0.7	1.7	0	1.8
Q312 C	8.2	8.6	8.3	8.1
Q313 B	8.2	8.6	8.2	8.1
E	8.8	9.3	8.9	8.7
Q314 B	11.9	11.9	11.9	11.9
C	0	0	0	0
Q315 B	3.3	2.9	3.2	3.3
E	3.9	3.5	3.8	4.0
Q318 B	12.1	11.7	12.1	12.1
C	1.0	1.2	1.0	0.9
Q322 B	2.4	2.3	5.6	2.4
E	1.8	1.8	5.0	1.8
Q323 B	5.0	0	0	0
C	0	3.5	3.5	3.6
Q324 B	4.1	0	0	0
C	0	0.8	0.8	0.9
Q328 G	2.8	2.8	0	0
Q329 G	0	1.6	2.9	2.8
Q332 B	4.9	0	0	0
С	0	4.4	4.3	4.4
Q333 B	1.7	1.9	1.7	1.7
E	1.5	1.7	1.5	1.4
Q339 B	12.3	12.5	12.5	12.3
Q354 B	12.0	0	0	0
E	12.0	0	0	-0.2
Q358 E	2.2	0	2.2	2.2
Q360 1	6.2	6.2	6.1	6.4
3	6.2	6.2	6	6.4
5	1.3	2.2	5.3	3.8
Q961 B	4.9	5.0	5.0	0.8
C	0.1	0	0.1	2.9
Q362 C	9.0	9.0	9.2	8.5
Q364 C	3.3	2.9	2.8	2.9
Q365 B	0.4	0.3	0.4	0.4
Q369 B	0.8	0.8	0.9	4.9
Q372 B	0	0	0	4.9
c	11.7	11.8	11.7	0

A (2/3) BOARD

C301	ACC OFF, GAIN-CONT, AMP	Q307	SYNC-CHIP-CLAMP 2	Q353	B/B-Y-BUFF-2	D306	SW
C302	PAL-60-ID2	Q308	CLAMP-REF	Q354	B/W-SW2	D307	B/W-SW
2303	O/S H BLANK/SPLIT POSITION	Q309	CLAMP-BUFF-2	Q355	258 TRIP SW	D308	SW
C304	SYSTEM-SW	Q310	PAL TRAP BUFFER 2	Q356	MUTE SW	D309	B/W-SW
C305	CHROMA-DEMOD	Q311	SLICER 2	Q357	ACC OFF AMP	D310	CLAMP
C306	G/Y-SW	Q312	AMP-1	Q358	ACC OFF SW	D311	XTAL ADJ
307	AFC SW	Q313	AMP-2	Q359	ACC ON SW	D313	SW
2309	R/R-Y/SW	Q314	SECAA SW	Q360	HOLD	D314	SLICER
C310	BLACK-INSERT	Q315	BUFF	Q361	EXT-SYNC SW	D315	7.5 OPSW
2311	SAMPLE	Q316	NT-COMB-D.CREF	Q362	OSD SW	D317	LEVEL-SHIFT
2312	B/B-Y-SW	Q318	SYNC-SEF	Q363	TEST BUFFER	D320	SLICE
2313	SYNC SELECT	Q319	Y-SW-BUFF	Q364	V-PULSE SW	D322	SLICE
2314	Y-SW	Q320	BUFFER	Q366	BRIGHT UP SW 1	D323	SW
C315	PULSE SELECT	Q321	B/W-SW 2	Q367	BRIGHT UP SW 2	D324	R-Y COLOR BALANCE ADJ
C316	SECAM CHROMA SELECT	Q323	PAL SW	Q368	BRIGHT UP SW 3	D325	PULSE SW
2317	H-PULSE-GATE	Q324	PAL SW	Q369	RGB SW	D326	LIMITTER
C318	NOT-GATE	Q325	SYNC-SIG-BUFF	Q372	RGB SW	D327	SW
C319	SW	Q326	Y-AMP-1	Q376	DIGITAL MODE SW 2	D332	RGB COMP SW
C320	CHROMA BPF SELECT	Q327	Y-AMP-2	Q377	DIGITAL MODE SW 1	D333	H BLK SW
C321	Y-D.LSW	Q328	443 SW	Q378	MUTE SW	D337	SECAM-SW
C322	G/Y SW SELECT	Q329	358 SW	Q380	SPLIT SW	D338	SW
C323	B/B-Y SW SELECT	Q330	R-Y-BUFF 1	Q381	SPLIT SW	D339	LIMITTER
C324	R/R-Y SW SELECT	Q331	B-Y-BUFF 1	Q382	OVER SCAN SW	D341	D. C. SHIFT
C325	AUDIO SELECT	Q332	358 SW	Q383	OVER SCAN SW	D344	SW
C326	HOLD AMP	Q333	SYNC-BUFF	Q384	OVER SCAN SW	D345	OSD G CLAMP
C327	SYNC SW	Q335	HV-DL SW	Q385	SPLIT SW	D346	OSD B CLAMP
C350	BUFFER AMP	Q338	V-SYNC SSP 1	Q386	SPLIT SYNC SW	D347	OSD R CLAMP
		Q339	V-SYNC SSP 2		7	D360	SW
		Q341	G/Y BUFFER			D361	SW
2300	PHASE SHIFT	Q342	R/R-Y BUFFER	D300	PHASE ADJ	D362	D. C. SHIFT
2301	SYNC-SHIP CLAMP 1	Q343	B/B-Y BUFFER	D301	SW	D363	D. C. SHIFT
2302	BUFFER	Q345	MUTE SW	D302	D. C. SHIFT	D364	SW
2303	VIDEO-IN-BUFF-1	Q350	INSERT-PULSE SW	D303	SECAM SW	D365	SECAM SW
Q305	CLAMP-BUFF-1	Q351	G/Y-BUFF-2	D304	SW	D381	SW
Q306	PAL TRAP BUFFER 1	Q352	R/R-Y-BUFF-2	D305	PROTECT		





20

A (3/3) BOARD WAVEFORMS

2.4 Vp-p(V)

①	2	3
1.0 Vp-p (V)	11.0 Vp-p(V)	12.0 Vp-p(.V)
4	S	6
		M
11.0 Vp-p(H)	12.0 Vp-p(H)	6.3 Vp-p(V)
⑦	8	9
3.9 Vp-p (V)	4.8 Vp-p(V)	4.8 Vp-p (V)
(0)	0	(2)
	M	
4.8 Vp-p(V)	4.0 Vp-p(H)	5.3 Vp-p(H)
13	(9	
111		
4.2 Vp-p(H)	4.8 Vp-p(H)	120 Vp-p (V)
		(
11.0 Vp-p(V)	3.8 Vp-p(V)	1.5 Vp-p(V)
(19)	20	2)
5.9 Vp-p(V)	11.2 Vp-p(V)	5.0 Vp-p(H)
23	23	3
4.8 Vp-p(H)	2.6 Vp-p(H)	3.8 Vp-p(H)
29	@ <u>_</u>	27
MMM		
170 Vp-p (H)	14.4 Vp-p (H)	1000 Vp-p (H)
29	29	
	122	
1 2 (1/2 - (1/4)	705 1/2 - / //	

305 Vp-p (H)

A (3/3) BOARD Q200 +12 REG
Q201 MUTE SW
Q500 CURR LIM 2
Q501 H OUT
Q502 H DRIVE
Q503 PIN OUT
Q505 H BLK 1
Q506 V ZOOMING
Q507 H BLK BUFFER
Q508 50/60 SWITCH
Q509 DIGITAL V SWITCH
Q510 16:9 SWITCH
Q511 CURR LIM 1
Q512 V DRIVE
Q513 V OUT 1
Q514 50/60 SWITCH
Q515 V OUT 2
Q517 H-V PHASE LOCK SW
Q518 U/S SWITCH 1
Q519 U/S SWITCH 2
Q520 +12V REG
Q522 H PULSE BUFFER
Q523 V CENT OUT 2
Q524 V CENT OUT 2
Q525 V CENT OUT 1
Q526 FBT+12V FAILURE SW
Q527 FAILURE
 D116
 CURR LIMITER

 D200
 AUDIO DC SHIFT

 D500
 SPEED UP

 D501
 HV PROTECT

 D502
 PIN DAMPER

 D503
 PROTECT

 D504
 PROTECT

 D505
 G2 RECT

 D506
 DAMPER

 D507
 HV DELAY SWITCH

 D508
 HV DELAY SWITCH

 D509
 SWITCH

 D509
 SWITCH

 D510
 +15V RECT

 D512
 PIN DAMPER 2

 D513
 H BLK

 D514
 +24V RECT

 D515
 +170V RECT

 D516
 H BLK

 D517
 SWITCH

 D518
 PROTECT

 D519
 V SYNC

 D520
 MICOM SWITCH

 D521
 MUTE SWITCH

 D522
 DC UP

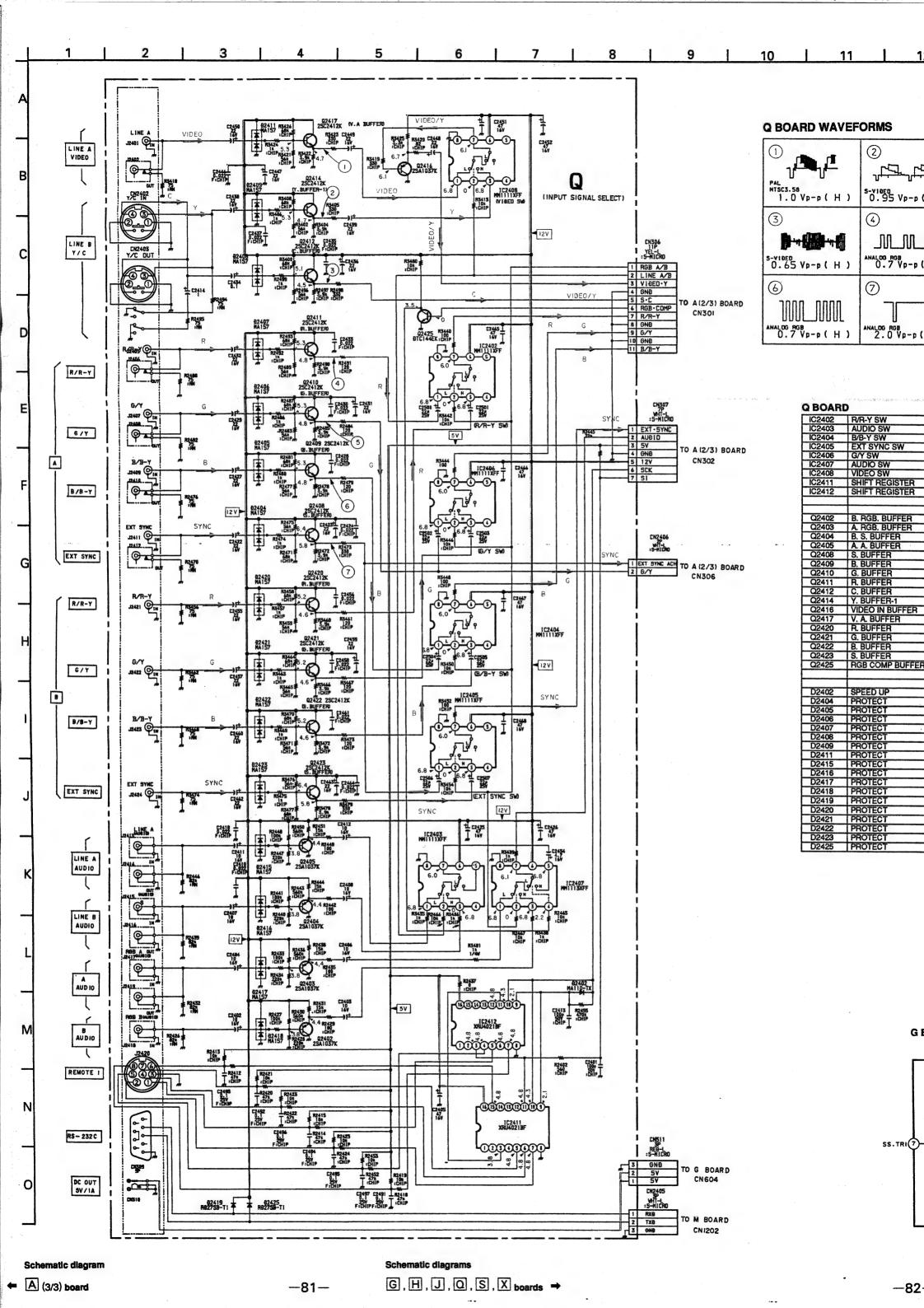
 D523
 BIAS

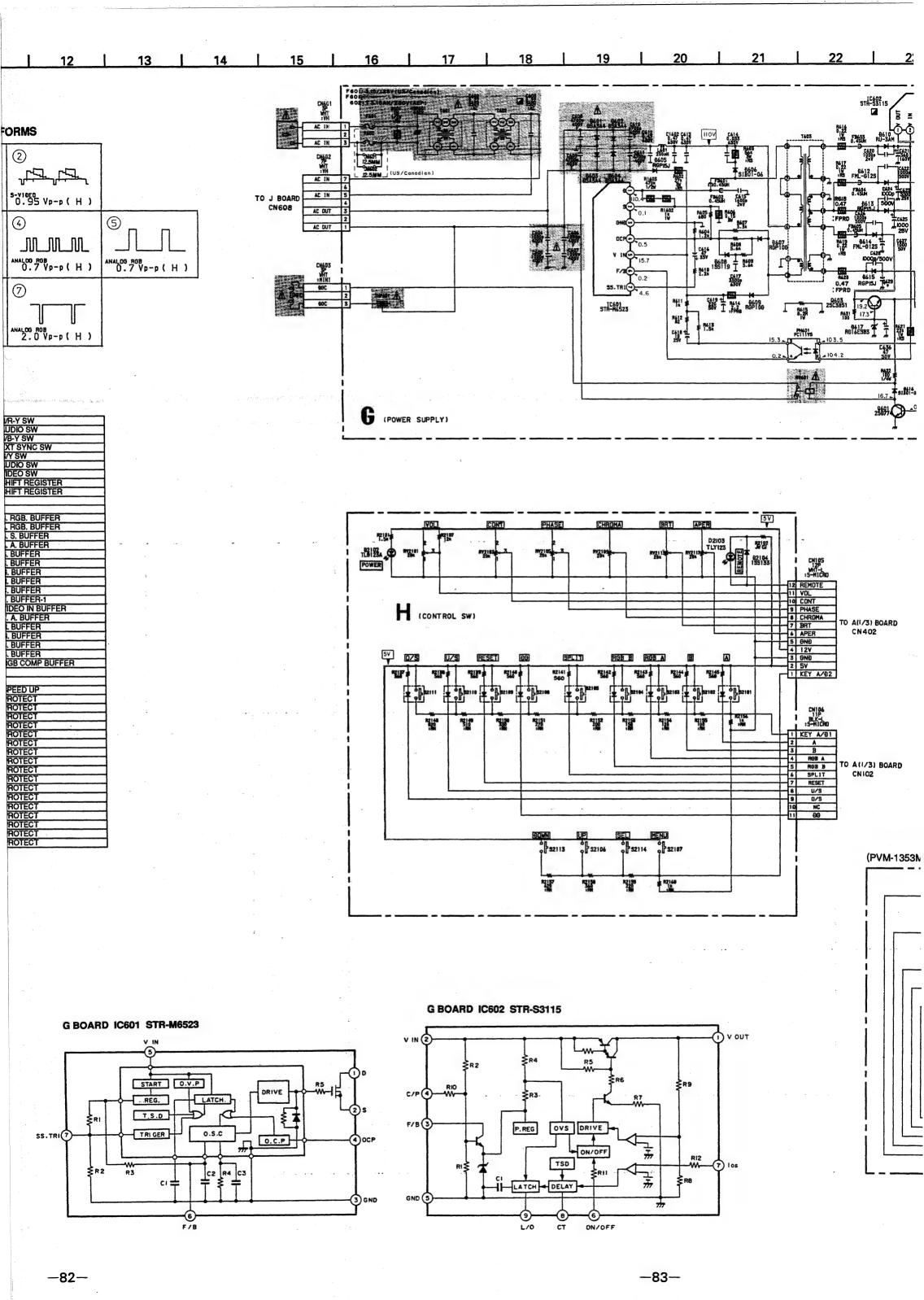
 D524
 H CENT

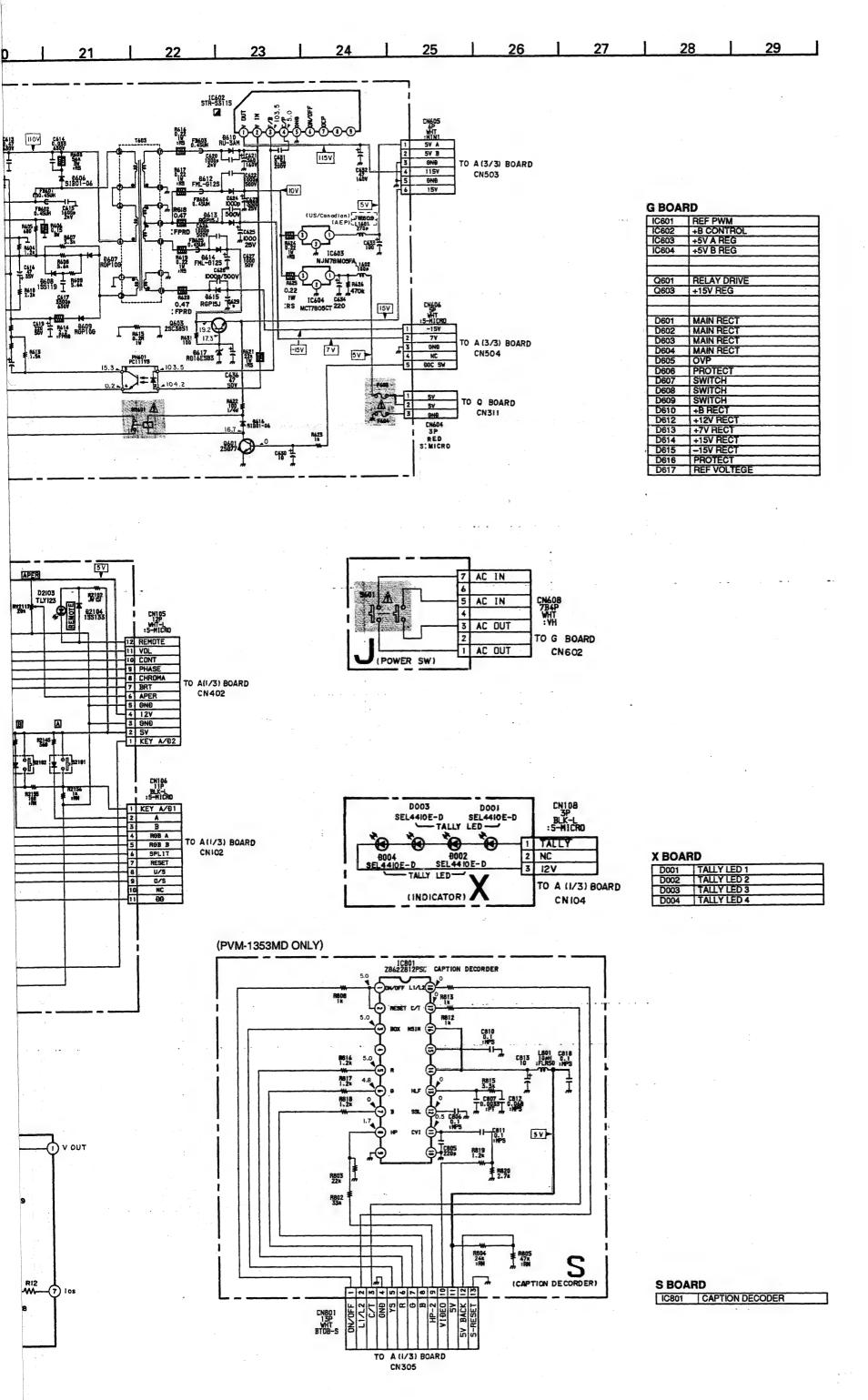
 D525
 H CENT

 D526
 50/60 SWITCH

 D527
 DC LIMITER







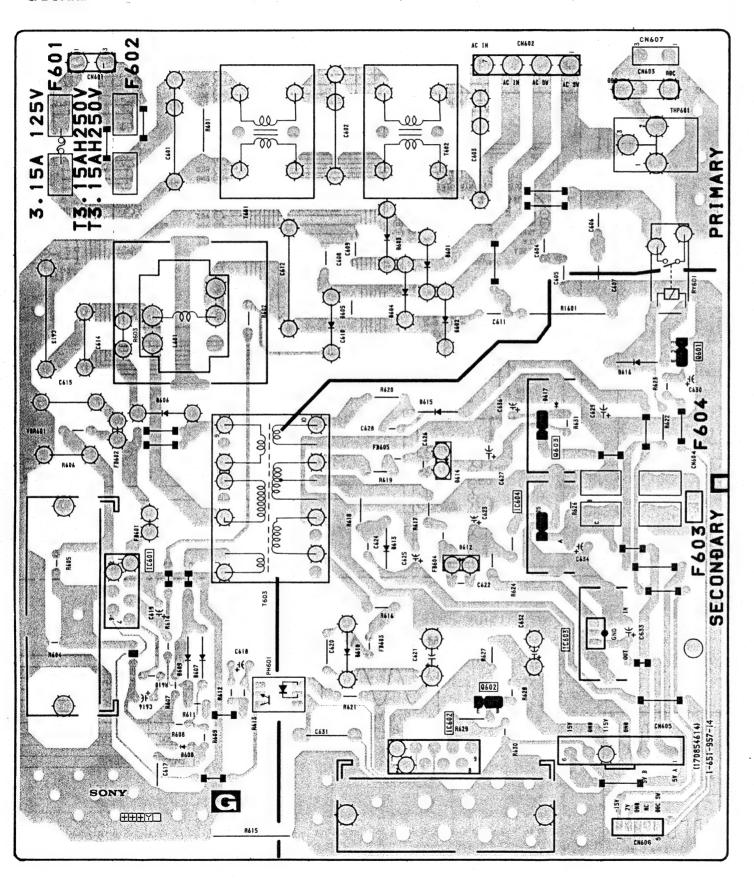
[INPUT SIGNAL SELECT]

Н [CONTROL SWITCH] [CAPTION DECORDER]

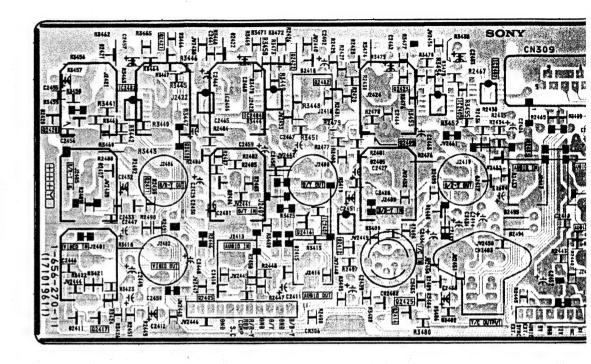
X [INDICATOR]

[POWER SWITCH]

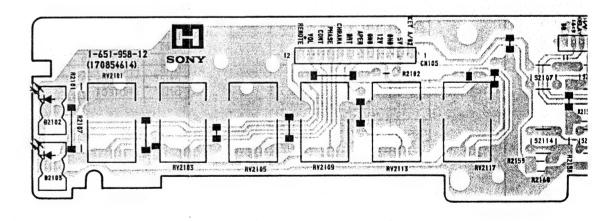
- G BOARD -

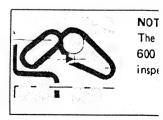






- H BOARD -





DL SWITCH]

S

[CAPTION DECORDER]

PRIMAR

SECOI

ZWNUL

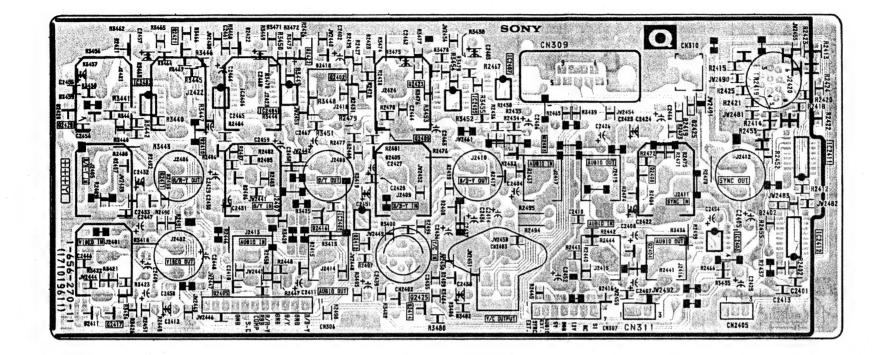


[INDICATOR]

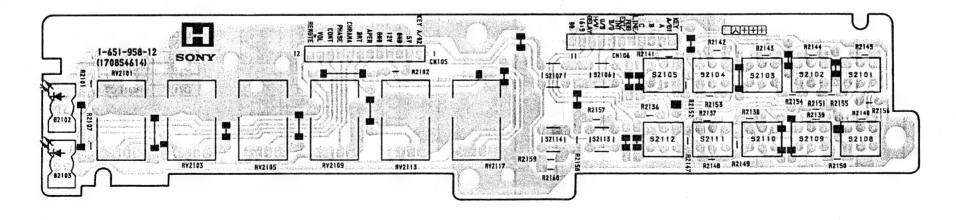


[POWER SWITCH]

- Q BOARD -



- H BOARD -

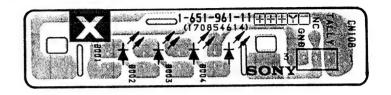


0

NOTE:

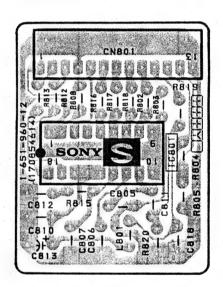
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

- X BOARD -

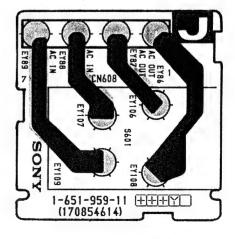


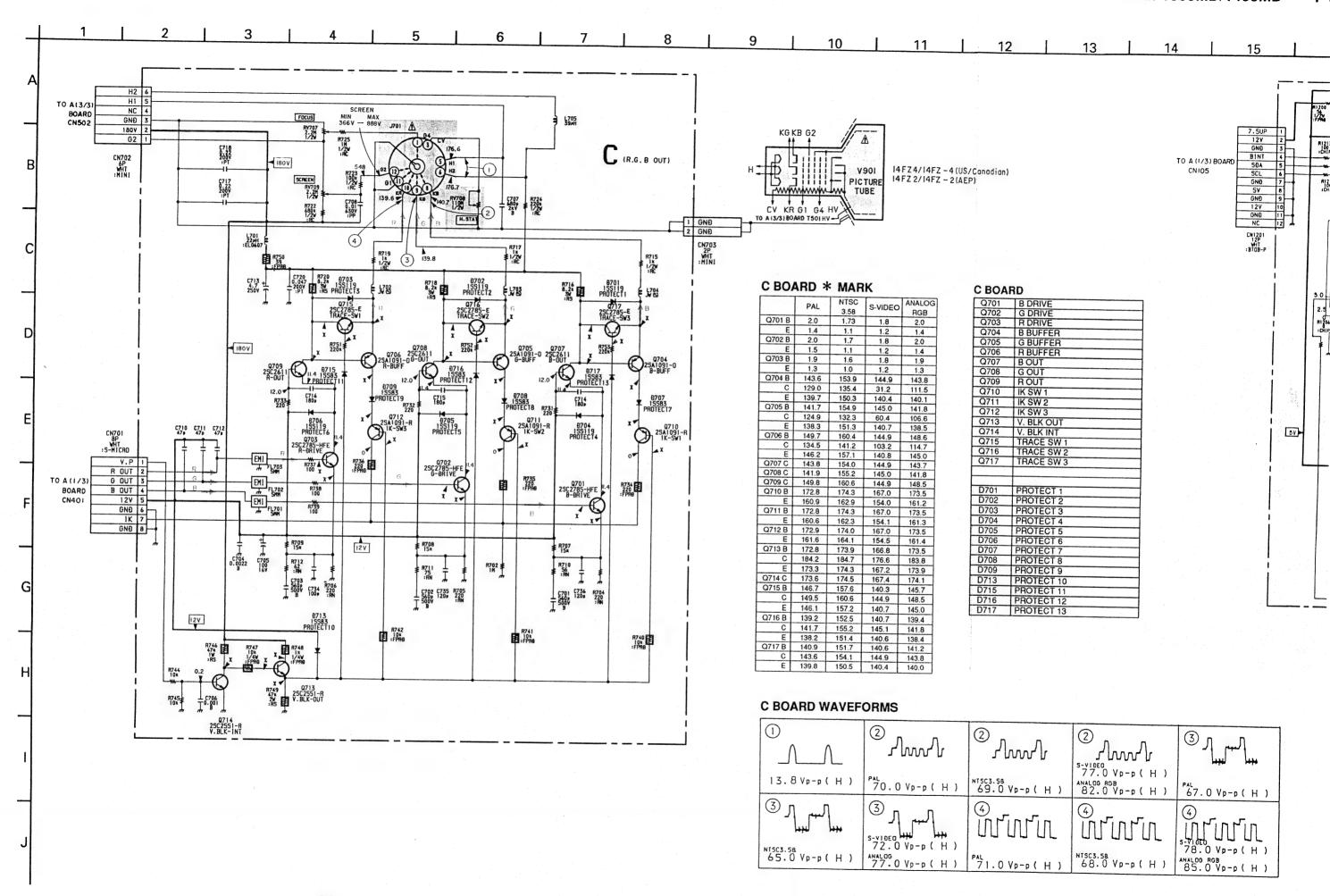
(PVM-1353MD ONLY)

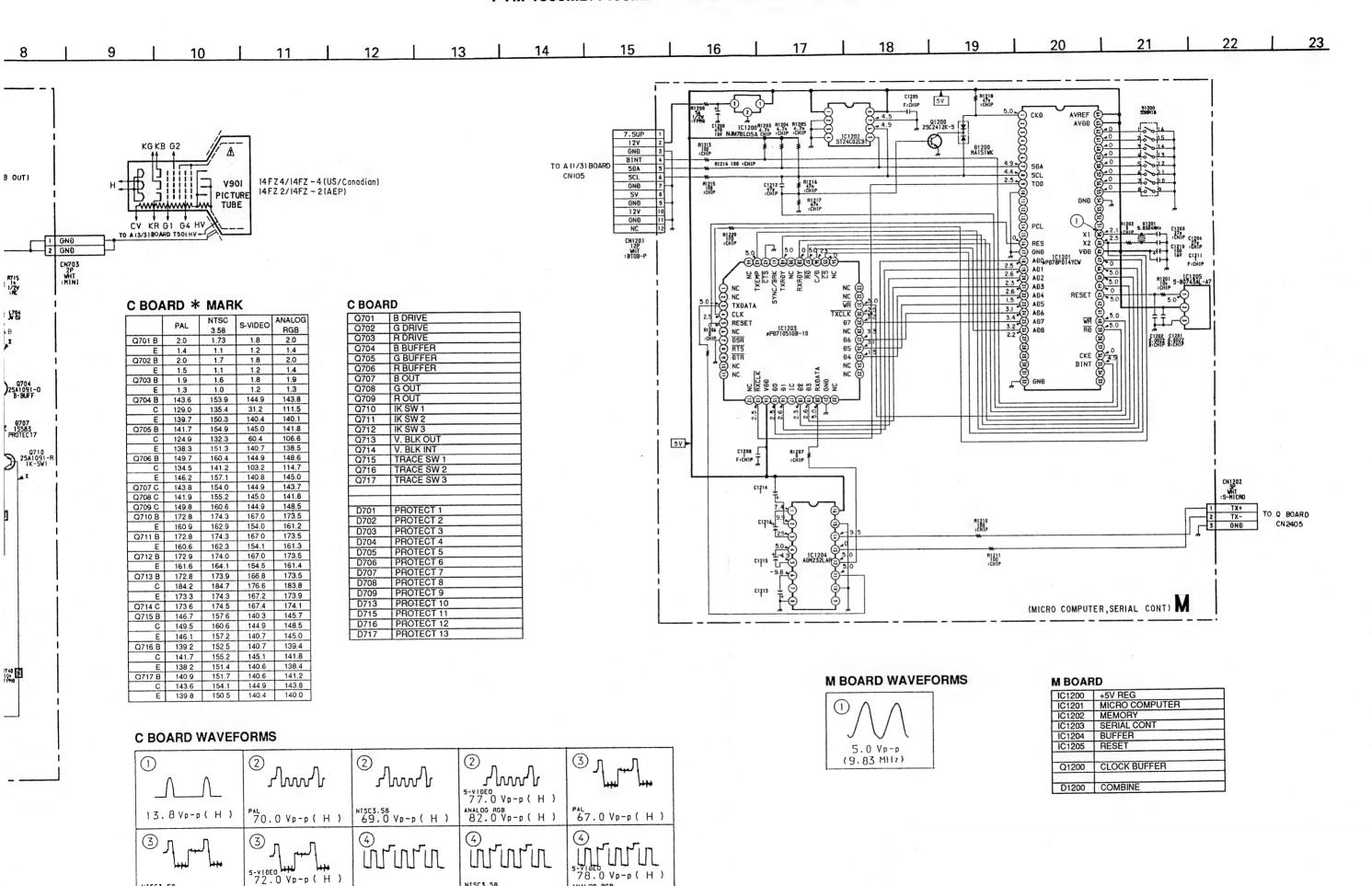
-SBOARD-



- J BOARD -







71.0 Vp-p(H)

77.0 Vp-p (H)

65.0 Vp-p (H)

NTSC3.58 68.0 Vp-p(H)

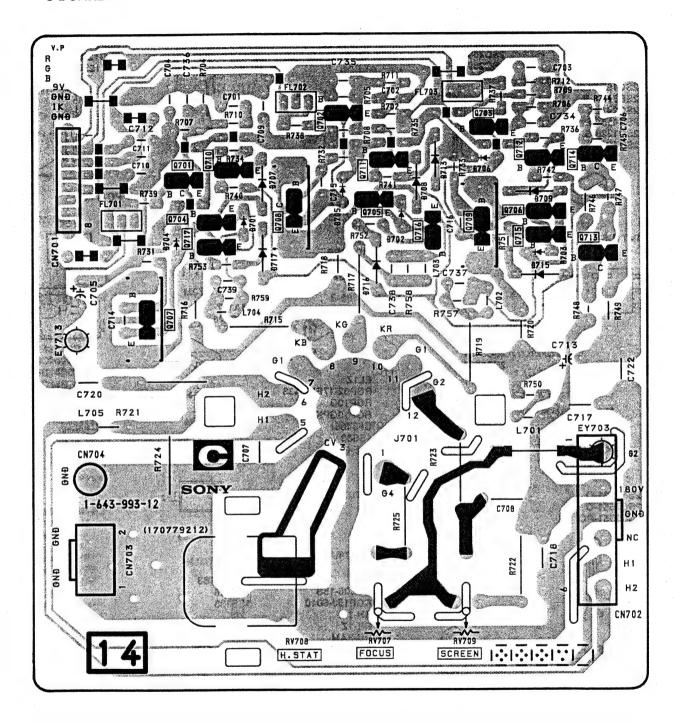
85.0 Vp-p (H)

C [R. G. B OUT]

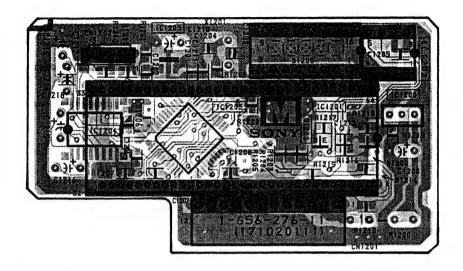
M

[MICRO COMPUTER, SERIAL CONT]

- C BOARD -

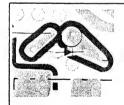


- M BOARD -



Note:

- Eattern from the side which enables seeing.



NOTE:

The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

6-5. SEMICONDUCTORS

ADM232LAR-REEL **BU4053BCF** MC14052BF MC14094BF MC14538BF SN74HC4040ANS RRILLARI (TOP VIEW) AN5265





BA7655AF-E2 **CXA1211M** LM358D LM358DR MM1111XF **MM1113XFF** MM1114XFF NJM2245M XRA10393F XRA10393FU XRA4558F UPC4558G2



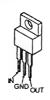
CXA1478S



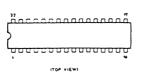
H8D7249



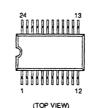
MCT78M05FA NJM78M05FA TA7805S



M51279FP



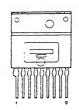
M62358FP-E1



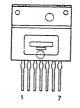
NJM78L05A



STR-S3115



STR-M6523



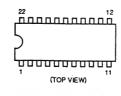
ST24C02CB1



S-80743AL-A7



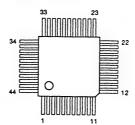
UPC1377C



UPD6451AGT-632-E2



UPC71051GB-10



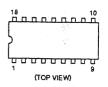
UPD78P014YCW UPD78013YCW-Y04



XRA17812T



Z8612812PSC



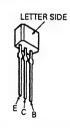
DTA144EK DTC124EK DTC144EK 2SA1037K 2SA1162-G 2SC1623-L5L6 2SB709A-R 2SC2412K 2SC4154-E 2SD1328-S 2SD601A IMT1US IMX1







2SA1175-HFE 2SC2785-HFE



2SA1220A 2SC2611 2SC2688 2SC2690A-Q



2SC2958-L 2SD774-3 2SD774-34



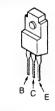
2SC3851 2SD1134-C



2SD1878-CA



2SD2396K



2SK94



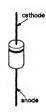
DSA3A4 ERC38-06 V19E V19G



DTZ11B DTZ13C DTZ3.6A DTZ5.6B **DTZ6.2** MA110 RD4.7SB 1SV230-TPH3 1SV232-TPH3



EL1Z RGP02-17EL-6433 RGP10G RGP10GPKG23 UF5406 15583 10E-2



ERC06-15S RGP15J-6040 RH-1A RH-1Z RU-3AM SIB01-06



FML-G12S



MA151WK 155184





MA157 1SS226





RD10SB1



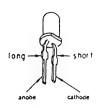
RD16ESB3 155119 **1SS133**



1S2835 **1S2836**



SEL4410E-D SLP281C-50 TLG123A **TLY123**



PC111YS





SECTION 7 EXPLODED VIEWS

- NOTE:
 Items with no part number and no description are not stocked because they are seldom required for routine service.
 The construction parts of an assembled part are indicated with a collation number in the remark column.
 Items marked " * are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

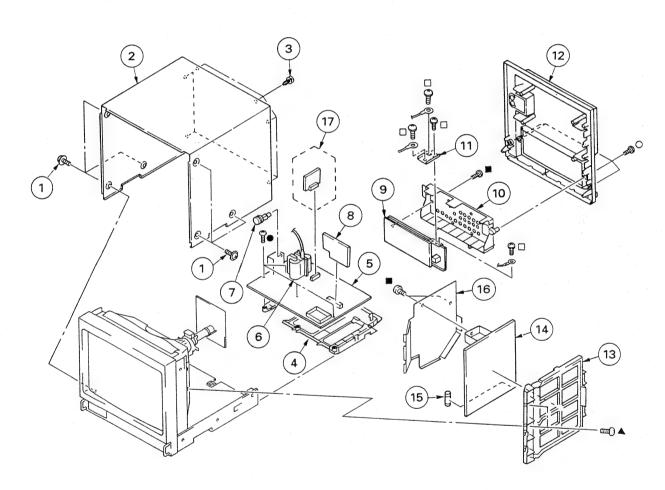
The components identified by shading and mark A are critical for safety.

Replace only with part number specified.

Les composants identifies par une trame et une marque 🛦 sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

7-1. CHASSIS

●:+BVTP 3×12 ■:+BVTP 3×8 ▲:+BVTT 4×8 ○:+BVTP 4×16 □:+PS 4×8 7-685-648-79 7-685-646-79 7-682-561-04 7-685-663-79 7-682-661-09



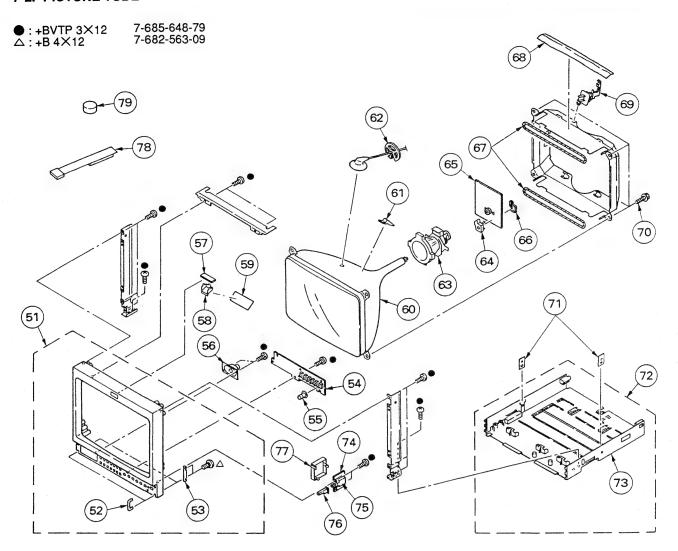
REF.NO. PART NO.	DESCRIPTION REMAI	K REF.	NO. PART NO.	DESCRIPTION REMARK
1 4-847-802-11 2 X-4032-539-2 3 4-391-825-01 4 *4-043-690-01 5 *A-1297-469-A	RIVET, NYLÔN BRACKET, MAIN	11 12 13 14	*A-1316-215-A	TERMINAL, GROUND COVER, REAR BRACKET, G G BOARD, COMPLETE (PVM-1453MD) G BOARD, COMPLETE (PVM-1353MD)
6		15 16 17		FUSE, (H.B.C.) 3.15A/125V (PVM-1453MD)

The components identified by shading and mark \triangle are critical for safety.

Replace only with part number specified.

Les composants identifies par une trame et une marque Å sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

7-2. PICTURE TUBE



REF. NO	D. PART NO.	DESCRIPTION	REMARK	REF.N	O. PART NO.	DESCRIPTION	REMARK
51 52 53 54 55	X-4032-540-1 4-043-680-11 *4-043-679-01 *A-1372-094-A X-4030-162-3	REINFORCEMENT, HANDLE H BOARD, COMPLETE	52,53	67 68 69 70 71	4-391-833-01 4-033-681-01	HOLDER, LEAD SCREW (5), TAPPING	
56 57 58 59	1-544-063-12 *A-1390-498-A *4-043-682-01 4-044-606-01	X BOARD, COMPLETE REFLECTOR, LED		72 73 74 75 76	4-391-840-04 *A-1388-166-A	CABINET ASSY, BOTTOM CABINET, BOTTOM J BOARD, COMPLETE SWITCH, PUSH (A.C. POWER) BUTTOM, POWER SWITCH	73
60	Δ. 8-734-822-05 Δ. 8-734-523-05	PICTURE TUBE 14FZ-4 (PVM-1353) PICTURE TUBE 14FZ-4 (PVM-1353) PICTURE TUBE 14FZ-2 (PVM-1453) PICTURE TUBE 14FZ2 (PVM-1453) SPACER, DY	MD) MD)	77 78 79	4-043-681-01 X-4309-608-0 1-452-032-00	COVER, AC SWITCH PERMALLOY ASSY, CONVERGENCE MAGNET, DISK	
62 63 64 65 66	*3-704-372-01 A. 8-451-329-12 *4-374-912-01 *A-1331-299-A *4-374-913-01	DEFLECTION YOKE Y14FZAM COVER (MAIN), CV VOL C BOARD, COMPLETE					

SECTION 8 ELECTRICAL PARTS LIST

A

NOTE:

The components identified by shading and mark \triangle are critical for safety.

Replace only with part number specified.

Les composants identifies par une trame et une marque A sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS

- · All resistors are in ohms
- · F : nonflammable

When indicating parts by reference number, please include the board name.

CAPACITORS COILS
• MF : μ F, PF : $\mu\mu$ F
• MMH : μ H, UH : μ H

- The components identified by in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
- * : Selected to yield optimum performance.
- There are some cases the reference number on one board overlaps on the other board. Therefore, when ordering parts by the reference number, please

						ordering pa	· ·	piease	
REF. NO	. PART NO.	DESCRIPTION		REMARK	REF.NO.	PART NO.	DESCRIPTION		REMARK
	*A-1297-469-A 1-540-044-11 *4-030-359-01	A BOARD, COMPLETE ****************** SOCKET, IC HEAT SINK, H. PIN HOLDER, IC PLATE (CF), SHIELD SPACER, MICA SCREW (M3X10), P, SW (+)			C171 C174 C175 C200 C201		CERAMIC CHIP 100PF CERAMIC CHIP 47PF CERAMIC CHIP 47PF ELECT 4.7MF	5% 5% 5% 20% 10%	50V 50V 50V 50V 100V
	*4-043-154-01 *4-043-994-01 4-363-414-00 4-382-854-11	HOLDER, IC PLATE (CF), SHIELD SPACER, MICA SCREW (M3X10), P. SW (+)			C202 C203 C204 C205	1-124-927-11	CERAMIC CHIP 0.0047MF ELECT 4.7MF ELECT 10MF ELECT 1000MF ELECT 100MF	10% 20% 20% 20%	50V 50V 50V 16V
	SCII.	W.C.D.			C206			20%	25V 25V
BPF400	0 1-236-363-11	TER> FILTER, BAND PASS ACITOR>			C208 C209 C304 C305	1-124-907-11 1-124-927-11 1-164-004-11 1-163-125-00	ELECT 100MF ELECT 10MF ELECT 4.7MF CERAMIC CHIP 0.1MF CERAMIC CHIP 220PF	20% 20% 10% 5%	50V 50V 25V 50V
	<cap< td=""><td>ACITOR></td><td></td><td></td><td>C306</td><td></td><td></td><td></td><td>507</td></cap<>	ACITOR>			C306				507
C105 C114 C115 C116 C117	1-163-251-11 1-163-031-11 1-163-031-11 1-163-031-11	CERAMIC CHIP 100PF CERAMIC CHIP 0.01MF CERAMIC CHIP 0.01MF CERAMIC CHIP 0.01MF CERAMIC CHIP 0.01MF	5%	50V 50V 50V 50V 50V	(313	1-103-145-00		26	25V 25V 50V 50V
C118 C119 C121 C123 C124	1-163-125-00 1-165-319-11 1-163-237-11 1-165-319-11 1-163-251-11	CERAMIC CHIP 220PF CERAMIC CHIP 0.1MF CERAMIC CHIP 27PF CERAMIC CHIP 0.1MF CERAMIC CHIP 100PF	5% 5%	50V 50V 50V 50V 50V	!		CERAMIC CHIP 82PF ELECT 10MF ELECT 47MF ELECT 10MF ELECT 10MF		50V 50V 25V 50V 50V
C132 C133 C134 C135 C136	1-163-141-00		5% 5% 5% 5% 5% 5% 5% 5% 5%	50V 50V 50V 50V 50V	C349 C350 C352	1-163-141-00 1-163-141-00 1-163-031-11		5% 5%	50V 50V 50V 50V 50V
C140 C141 C142 C143 C144	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V 50V 50V 50V 50V	C357	1-163-031-11	CERAMIC CHIP 0.1MF CERAMIC CHIP 150PF ELECT 1MF ELECT 4.7MF CERAMIC CHIP 0.01MF		50V 50V 50V 50V 50V
C145 C154 C155 C156 C157	1-165-319-11 1-163-037-11 1-163-023-00 1-163-019-00 1-163-019-00	CERAMIC CHIP 0.0022mF CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF CERAMIC CHIP 0.022MF CERAMIC CHIP 0.015MF CERAMIC CHIP 0.0068MF CERAMIC CHIP 0.0068MF	10% 10% 10% 10%	50V 25V 50V 50V 50V	C362	1-163-031-11			50V 25V 50V 50V 50V
C158 C159 C161 C162	1-163-809-11 1-163-037-11 1-124-477-11 1-163-141-00	CERAMIC CHIP 0.047MF CERAMIC CHIP 0.022MF	10%	25V 25V 16V 50V 50V	C363 C364 C365 C366 C367	1-163-099-00 1-163-031-11 1-106-343-00 1-163-031-11 1-163-031-11	CERAMIC CHIP 18PF CERAMIC CHIP 0.01MF MYLAR 0.001MF CERAMIC CHIP 0.01MF CERAMIC CHIP 0.01MF	5% 10%	50V 50V 100V 50V 50V
C164 C165 C166 C167 C168	1-165-319-11 1-165-319-11 1-164-004-11 1-124-472-11 1-124-472-11	CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF ELECT 470MF ELECT 470MF	10% 20% 20%	50V 25V 10V 10V	C368 C369 C370 C371 C372	1-124-907-11 1-164-298-11 1-124-477-11 1-124-477-11 1-163-031-11	ELECT 10MF CERAMIC CHIP 0.15MF ELECT 47MF ELECT 47MF CERAMIC CHIP 0.01MF	20% 10% 20% 20%	50V 25V 25V 25V 50V
C169	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	C373	1-163-141-00	CERAMIC CHIP 0.001MF	5%	50 V



REF.NO. PART NO.	DESCRIPTION		REMARK	REF.NO.	PART NO.	DESCRIPTION		REMARK
C374 1-124-903-1 C375 1-163-125-0 C376 1-124-902-0 C377 1-163-809-1 C378 1-163-809-1	O CERAMIC CHIP 220PF O ELECT 0.47MF 1 CERAMIC CHIP 0.047MF 1 CERAMIC CHIP 0.047MF	10%	50V 50V 50V 25V 25V	C444 C445 C446 C447 C448	1-163-809-11	CERAMIC CHIP 0.1MF CERAMIC CHIP 0.047MF CERAMIC CHIP 6PF CERAMIC CHIP 330PF CERAMIC CHIP 47PF	10% 0.25PF 5%	50V 25V 50V 50V 50V
C379 1-163-031-1 C380 1-124-360-0 C381 1-163-031-1 C382 1-163-243-1 C383 1-124-477-1		20% 5% 20%	50V 16V 50V 50V 25V	C449 C450 C451 C452 C453	1-163-227-11 1-163-809-11 1-164-004-11 1-163-263-11 1-163-031-11	CERAMIC CHIP 10PF CERAMIC CHIP 0.047MF CERAMIC CHIP 0.1MF CERAMIC CHIP 330PF CFRAMIC CHIP 0.01MF	0.5PF 10% 10% 5%	50 V 25 V 25 V 50 V 50 V
C384 1-163-249-1 C385 1-124-477-1 C386 1-124-907-1 C387 1-163-141-0 C388 1-124-907-1	1 ELECT 47MF 1 ELECT 10MF 0 CERAMIC CHIP 0.001MF 1 ELECT 10MF	20%	50 V 25 V 50 V 50 V 50 V	C454 C455 C456 C457 C458	1-163-243-11 1-163-263-11 1-163-089-00 1-163-031-11 1-163-249-11	CERAMIC CHIP 47PF CERAMIC CHIP 330PF CERAMIC CHIP 6PF CERAMIC CHIP 0.01MF CERAMIC CHIP 82PF CERAMIC CHIP 0.1MF		50V 50V
C390 1-163-243-1 C391 1-124-477-1 C392 1-164-298-1 C393 1-164-298-1 C394 1-124-477-1	1 ELECT 47MF 1 CERAMIC CHIP 0.15MF 1 CERAMIC CHIP 0.15MF 1 ELECT 47MF		50 V 25 V 25 V 25 V 25 V	C459 C460 C461 C462 C463	1-164-004-11 1-163-119-00 1-163-031-11 1-163-031-11	CERAMIC CHIP 0.1MF CERAMIC CHIP 120PF CERAMIC CHIP 0.01MF CERAMIC CHIP 0.01MF		50V 25V 50V 50V 50V 25V
C398 1-124-477-1 C399 1-124-477-1	1 ELECT 47MF 1 ELECT 47MF 1 ELECT 47MF	5% 10% 20% 20% 20%	50 V 25 V 25 V 25 V 25 V	C464 C465 C466 C467 C469	1-163-119-00 1-163-119-00 1-163-037-11	CERAMIC CHIP 0.22MF CERAMIC CHIP 15PF CERAMIC CHIP 120PF CERAMIC CHIP 120PF CERAMIC CHIP 0.022MF CERAMIC CHIP 47PF	5% 5% 5% 10%	50 V 50 V 50 V 25 V 50 V
	1 CERAMIC CHIP 1MF 1 ELECT 47MF 1 CERAMIC CHIP 0.01MF 1 ELECT 22MF	20% 10% 20%	25V 16V 50V 50V 50V	1 6473	1-102-021-11	CERAMIC CHIP 33PF CERAMIC CHIP 0.01MF CERAMIC CHIP 0.01MF	5%	50 V 50 V 50 V 50 V 50 V
C409 1-163-031-1 C410 1-124-916-1 C411 1-164-004-1	1 CERAMIC CHIP 0.01MF 1 CERAMIC CHIP 0.01MF 1 ELECT 22MF 1 CERAMIC CHIP 0.1MF	20%	25V 50V 50V 50V 25V	C476 C477 C478 C479 C482	1-124-907-11 1-163-121-00 1-124-472-11	CERAMIC CHIP 0.22MF ELECT 10MF CERAMIC CHIP 150PF ELECT 470MF CERAMIC CHIP 82PF	10% 20% 5% 20% 5%	25 V 50 V 50 V 10 V 50 V
C416 1-164-232-1 C417 1-164-232-1 C418 1-164-182-1	CERAMIC CHIP 0.01MF CERAMIC CHIP 0.0033MF	20% 10% 10% 10%	50V 50V 50V 50V 50V	C483 C484 C485 C486 C487	1-163-249-11 1-163-113-00 1-163-113-00 1-163-249-11 1-163-235-11 1-163-097-00	CERAMIC CHIP 68PF CERAMIC CHIP 68PF CERAMIC CHIP 82PF CERAMIC CHIP 22PF CERAMIC CHIP 15PF		50 V 50 V 50 V 50 V 50 V
C421 1-164-222-1 C422 1-124-903-1 C423 1-163-809-1	1 CERAMIC CHIP 0.047MF 1 CERAMIC CHIP 0.22MF 1 ELECT 1MF 1 CERAMIC CHIP 0.047MF	20% 10%	50V 25V	C488 C490 C491 C492 C493	1-164-336-11 1-164-336-11 1-164-336-11 1-104-760-11	CERAMIC CHIP 0.33MF CERAMIC CHIP 0.33MF CERAMIC CHIP 0.33MF CERAMIC CHIP 0.047MF CERAMIC CHIP 0.047MF	10% 10%	25 V 25 V 25 V 25 V 50 V
C424 1-163-809-1 C426 1-163-243-1 C427 1-163-031-1 C428 1-124-119-0 C429 1-163-031-1	1 CERAMIC CHIP 47PF 1 CERAMIC CHIP 0.01MF 0 ELECT 330MF 1 CERAMIC CHIP 0.01MF	10% 5% 20%	25V 50V 50V 16V 50V	C494 C495 C496 C497 C498	1-104-760-11 1-124-907-11 1-163-239-11 1-163-011-11 1-124-925-11	CERAMIC CHIP 33PF CERAMIC CHIP 0.0015MF ELECT 2.2MF	20% 5% 10% 20%	50V 50V 50V 50V 50V
C430 1-124-119-0 C431 1-165-319-1 C432 1-164-004-1 C433 1-163-235-1 C434 1-163-031-1	1 CERAMIC CHIP 0.1MF 1 CERAMIC CHIP 0.1MF 1 CERAMIC CHIP 22PF 1 CERAMIC CHIP 0.01MF	20% 10% 5%	16V 50V 25V 50V 50V		1-163-031-11 1-164-004-11 1-164-182-11 1-163-141-00 1-163-251-11	CERAMIC CHIP 0.01MF CERAMIC CHIP 0.1MF CERAMIC CHIP 0.0033MF CERAMIC CHIP 0.001MF CERAMIC CHIP 100PF	10% 10% 5% 5%	25V 50V 50V 50V
C435 1-163-089-0 C436 1-164-004-1 C437 1-164-004-1 C438 1-163-809-1 C439 1-163-809-1	1 CERAMIC CHIP 0.1MF 1 CERAMIC CHIP 0.1MF 1 CERAMIC CHIP 0.047MF 1 CERAMIC CHIP 0.047MF	0.25PF 10% 10% 10% 10%	25V 25V 25V 25V	C504 C505 C506 C507 C508	1-136-495-11 1-163-199-00 1-124-902-00 1-126-375-11 1-130-495-00	CERAMIC CHIP 560PF ELECT 0.47MF ELECT 100MF MYLAR 0.1MF ELECT 470MF	5% 20% 20% 5% 20%	50V 50V 25V 50V 100V
C440 1-163-031-1 C441 1-126-962-1 C442 1-163-809-1 C443 1-163-243-1	1 ELECT 3.3MF 1 CERAMIC CHIP 0.047MF	20% 10% 5%	50V 50V 25V 50V	C509 C511 C512	1-124-935-11 1-108-700-11 1-124-902-00	ELECT 470MF MYLAR 0.047MF ELECT 0.47MF	10% 20%	200V 50V

The components identified by shading and mark \triangle are critical for safety.

Replace only with part number

specified.

Les composants identifies par une trame et une marque A sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.



REF.NO. PART NO.	DESCRIPTION		REMARK		PART NO.	DESCRIPTION			REMARK
C513 1-126-096-11 C514 1-129-718-00	ELECT 10MF FILM 0.022MF	20% 10%	25V 630V	C586	1-124-557-11	ELECT	1000MF	20%	25V
C515 1-163-809-11 C516 1-102-030-00 C517 1-163-024-00	CERAMIC CHIP 0.047MF CERAMIC 330PF CERAMIC CHIP 0.018MF	10% 10% 10%	25V 500V 50V	C587 C588 C589 C590	1-102-030-00 1-124-667-11 1-102-030-00 1-126-387-11	CERAMIC ELECT CERAMIC ELECT	330PF 10MF 330PF 2.2MF	10% 20% 10% 20%	500V 50V 500V 50V 200V
C518 1-107-995-11 C519 1-163-017-00 C520 1-163-257-11	ELECT 100MF CERAMIC CHIP 0.0047M CERAMIC CHIP 180PF	0 10% 5%	160V 50V 50V	C591 C592	1-106-371-00 1-123-932-00	MYLAR ELECT	0.015MF 4.7MF	10% 20%	160V
C521 1-162-114-00 C522 1-124-360-00 C523 1-126-801-11	CERAMIC 0.0047M ELECT 1000MF	20%	2KV 16V 50V	C593 C594 C595 C596	1-165-319-11 1-163-229-11 1-126-336-11 1-124-478-11	CERAMIC CHIP CERAMIC CHIP ELECT ELECT	0.1MF	5% 20% 20%	50V 50V 25V 25V
C525 A. 1-136-545-11 C526 A. 1-162-116-91	FILM 0.0078M CERAMIC 680PF	3% 10%	2KV 2KV	C597	1-164-346-11	CERAMIC CHIP	1MF	2070	16V 16V
C529 1-104-797-11 C530 1-124-120-11 C531 1-124-477-11	ELECT 0.47MF ELECT 220MF ELECT 47MF	20% 20%	50V 25V 25V	C598 C599 C1300 C1302	1-164-346-11 1-126-157-11 1-124-477-11 1-163-133-00	CERAMIC CHIP ELECT ELECT CERAMIC CHIP	10MF 47MF	20% 20% 5%	16V 25V 50V
C532 1-163-031-11 C533 1-102-212-00	CERAMIC CHIP 0.01MF CERAMIC 820PF	10%	50V 500V	C1304	1-124-477-11	ELECT	47MF	20% 20%	25V 25V
C534 1-123-948-00 C537 1-124-913-11	ELECT 22MF ELECT 470MF	20% 20%	250V 50V	C1305 C1306 C1307	1-124-477-11 1-163-031-11 1-163-031-11	CERAMIC CHIP	0.01MF		50V 50V
C538 1-106-367-00 C539 1-130-480-00 C540 1-163-133-00	MYLAR 0.01MF FILM 0.0056M CERAMIC CHIP 470PF	10% 5% 5%	100V 50V 50V	C1308	1-124-443-00 1-163-257-11	CERAMIC CHIP	100MF	20% 5%	10V 50V
C541 1-124-927-11 C542 1-106-351-00	ELECT 4.7MF MYLAR 0.0022M	20%	50V 100V	C1310 C1311	1-163-031-11 1-124-477-11	CERAMIC CHIP ELECT CERAMIC CHIP	0.01MF 47MF	20%	50 V 25 V 50 V
C543 1-106-351-00 C544 1-106-367-00	MYLAR 0.0022M MYLAR 0.01MF	10%	100V 100V	C1312 C1313	1-163-031-11 1-163-031-11	CERAMIC CHIP	0.01MF		50V
C545 1-102-212-00 C546 1-163-119-00 C547 1-163-251-11	CERAMIC 820PF CERAMIC CHIP 120PF CERAMIC CHIP 100PF	10% 5% 5%	500V 50V 50V	C1314 C1315 C1316	1-124-477-11 1-124-477-11 1-163-031-11	ELECT ELECT CERAMIC CHIP	47MF 47MF 0.01MF	20% 20%	25V 25V 50V
C548 1-102-212-00	CERAMIC 820PF	10%	500V	C1317 C1318	1-124-477-11 1-124-477-11	ELECT ELECT	47MF 47MF	20% 20%	25V 25V
C549 1-124-667-11 C550 1-126-163-11 C551 1-106-375-12	ELECT 10MF ELECT 4.7MF MYLAR 0.022MF	20% 20% 10%	50V 50V 100V	C1319 C1320	1-124-477-11 1-124-477-11	ELECT ELECT	47MF 47MF	20% 20%	25V 25V
C552 1-126-336-11 C554 1-130-736-11	ELECT 220MF FILM 0.01MF	20% 5%	25V 50V	C1321 C1322 C1323	1-124-477-11 1-124-120-11 1-163-031-11	ELECT ELECT CERAMIC CHIP	47MF 220MF 0.01MF	20% 20%	25V 16V 50V
C555 1-124-907-11 C556 1-124-907-11	ELECT 10MF ELECT 10MF	20% 20% 10%	50V 50V 100V	C1324 C1325	1-163-031-11 1-163-031-11	CERAMIC CHIP CERAMIC CHIP	0.01MF		50V 50V
C557 1-106-381-12 C558 1-124-903-11	ELECT 1MF	20%	50V	C1326	1-124-477-11 1-163-031-11	ELECT CERAMIC CHIP	47MF 0.01MF	20%	25V 50V
C559 1-136-173-00 C561 1-136-159-00 C562 1-163-249-11	FILM 0.47MF FILM 0.033MF CERAMIC CHIP 82PF	5% 5% 5%	50V 50V 50V	C1328	1-163-031-11 1-124-907-11	CERAMIC CHIP	10MF	20%	50V 50V
C564 1-124-907-11 C565 1-124-903-11	ELECT 10MF ELECT 1MF	20% 20%	50V 50V	C1330 C1331 C1332	1-163-031-11 1-124-477-11 1-124-477-11	CERAMIC CHIP ELECT ELECT	0.01MF 47MF 47MF	20% 20%	50V 25V 25V
C566 1-106-367-00 C567 1-136-499-11 C568 1-124-903-11	MYLAR 0.01MF FILM 0.047MF	10% 5%	100V 50V	C1333	1-124-477-11	ELECT	47MF	20%	25V
C568 1-124-903-11 C569 1-131-351-00 C570 1-124-360-00	ELECT 1MF TANTALUM 4.7MF ELECT 1000MF	20% 10% 20%	50V 25V 16V	C1334 C1335 C1336	1-163-227-11 1-124-477-11 1-124-477-11	CERAMIC CHIP ELECT ELECT	47MF 47MF	0.5PF 20% 20%	50V 25V 25V
C571 1-164-232-11	CERAMIC CHIP 0.01MF ELECT 4.7MF	10%	50V 160V	C1338 C1339	1-163-031-11 1-163-031-11	CERAMIC CHIP CERAMIC CHIP	0.01MF 0.01MF		50V 50V
C573 1-136-173-00 C575 1-163-031-11	FILM 0.47MF CERAMIC CHIP 0.01MF	5%	50V 50V	C1340 C1341	1-163-031-11 1-163-275-11	CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP	0.001MF	5% 5%	50V 50V 50V
C576 1-102-244-00 C577 1-124-907-11	CERAMIC 220PF ELECT 10MF	10% 20%	500V 50V	C1342 C1343 C1344	1-163-105-00 1-163-113-00 1-163-083-00	CERAMIC CHIP CERAMIC CHIP	68PF	5% 0.25PF	50V
C578 1-136-540-11 C579 1-126-804-11	FILM 0.82MF ELECT 100MF FILM 0.24MF	5% 20% 5%	200V 50V 200V	C1345 C1346	1-124-907-11 1-124-477-11	ELECT ELECT	10MF 47MF	20% 20%	50V 25V
C580 1-136-756-11 C581 1-124-927-11	ELECT 4.7MF	20%	50V	C1347	1-163-031-11 1-163-127-00	CERAMIC CHIP	0.01MF 270PF	5% 5%	50V 50V 50V
C582 1-102-002-00 C583 1-136-569-11 C584 1-123-267-00	CERAMIC 680PF FILM 1.2MF ELECT 2.2MF	10% 5% 20%	500V 200V 160V	C1349	1-163-117-00 1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C585 1-124-666-11	ELECT 4.7MF	20%	250V	C1351	1-124-903-11	ELECT	1MF	20%	50V



REF.NO.	PART NO.	DESCRIPTION		REMARK		PART NO.	DESCRIPTION	REMARK
C1352 C1353 C1354 C1355 C1356	1-163-023-00 1-163-031-11 1-163-121-00 1-163-125-00 1-163-235-11	CERAMIC CHIP 0.01 CERAMIC CHIP 0.01 CERAMIC CHIP 150P CERAMIC CHIP 220P CERAMIC CHIP 22PF	MF PF 5% PF 5%	50V 50V 50V 50V 50V		*1-573-979-11	NECTOR> CONNECTOR, BOARD TO BOARD 11P PLUG, CONNECTOR 11P	
C1357 C1358 C1359	1-124-119-00 1-124-477-11 1-163-263-11	ELECT 330M ELECT 47MF CERAMIC CHIP 330P CERAMIC CHIP 0.00	7F 20%	16V 25V 50V 50V	CN104 CN105 CN201	*1-564-506-11 *1-565-503-11 *1-564-506-11 *1-564-514-11	PLUG, CONNECTOR 3P CONNECTOR, BOARD TO BOARD 12P PLUG, CONNECTOR 3P PLUG, CONNECTOR 11P	
C1360 C1362 C1363 C1364 C1365	1-164-161-11 1-163-249-11 1-163-235-11 1-163-133-00 1-163-227-11	CERAMIC CHIP 82PF CERAMIC CHIP 22PF CERAMIC CHIP 470P CERAMIC CHIP 10PF	5% 5% F 5%	50V 50V 50V 50V	CN302 CN303 CN304	*1-564-510-11 *1-564-515-11 *1-564-509-11 *1-565-504-11	PLUG, CONNECTOR 7P PLUG, CONNECTOR 12P PLUG, CONNECTOR 6P CONNECTOR, BOARD TO BOARD 13P	
	1-103-227-11 1-124-477-11 1-124-477-11	ELECT 47MF ELECT 47MF ELECT 47MF	20%	25 V 25 V 25 V	CN401 CN402	1-564-505-11 *1-564-511-11 *1-564-515-11 *1-580-798-11	PLUG, CONNECTOR 2P PLUG, CONNECTOR 8P PLUG, CONNECTOR 12P CONNECTOR PIN (DY) 6P	
C1373 C1374	1-124-477-11 1-124-477-11 1-124-927-11 1-163-097-00	ELECT 47MF ELECT 4.7MF ELECT 4.7M CERAMIC CHIP 15PF	20% 20% IF 20%	25V 25V 50V 50V	CN502 CN503 CN504	*1-573-964-11 *1-573-964-11 *1-564-508-11	PIN, CONNECTOR (PC BOARD) 6P PIN, CONNECTOR (PC BOARD) 6P PLUG, CONNECTOR 5P	
C1382 C1384 C1385	1-124-443-00 1-163-038-91 1-163-031-11	ELECT 100M CERAMIC CHIP 0.1M CERAMIC CHIP 0.01 CERAMIC CHIP 0.01	IF MF	10V 25V 50V 50V	CN505 CN507	*1-535-419-00	PLUG, CONNECTOR 3P TAB, FASTEN (PCB)	
C1386 C1387 C1391	1-163-031-11 1-163-031-11 1-164-222-11	CERAMIC CHIP 0.01 CERAMIC CHIP 0.22	MF	50V 25V	CP300 CP301	1-236-366-11		
C1392 C1394	1-124-234-00 1-124-477-11 1-124-477-11 1-163-275-11	ELECT 22MF ELECT 47MF ELECT 47MF CERAMIC CHIP 0.00	20% 20% 20%	16V 16V 16V 50V	CP302	1-808-654-21		
C1397	1-163-031-11	CERAMIC CHIP 0.01	MF	50V 16V	D100	<dio 8-719-404-46</dio 		
C1400	1-124-477-11 1-124-234-00 1-163-031-11 1-136-173-00	ELECT 47MF ELECT 22MF CERAMIC CHIP 0.01 FILM 0.47	20% MF	16V 50V 50V	D101 D102 D103 D104	8-719-404-40 8-719-800-76 8-719-800-76 8-719-045-70 8-719-800-76	DIODE 1SS226 DIODE 1SS226 DIODE 1SV230TPH3 DIODE 1SS226	
C1402 C1403 C1404 C1405 C1406	1-163-031-11 1-136-173-00 1-164-299-11 1-163-235-11 1-163-090-00	CERAMIC CHIP 0.01 FILM 0.47 CERAMIC CHIP 0.22 CERAMIC CHIP 22PF CERAMIC CHIP 7PF	MF 5% 10% 5%	50V 50V 25V 50V 50V	D105 D106 D107 D108 D109	8-719-800-76 8-719-800-76 8-719-800-76 8-719-104-34 8-719-801-78	DIODE 1SS226 DIODE 1SS226 DIODE 1SS226 DIODE 1SS226 DIODE 1S2836 DIODE 1SS184	
C1500 C1501	1-163-085-00 1-163-113-00 1-124-556-11 1-124-472-11 1-101-821-00	CERAMIC CHIP 2PF CERAMIC CHIP 68PF ELECT 2200 ELECT 470M CERAMIC 0.00		50V 50V 16V 10V 500V	D111 D113 D114 D115 D116	8-719-977-05 8-719-159-06 8-719-404-46	DIODE DTZ6.2 DIODE RD4.7SB-T2 DIODE MA110 DIODE DTZ6.2 DIODE MA110	
C1504 C1505	1-164-004-11 1-124-907-11 1-136-165-00 1-124-119-00 1-163-141-00	CERAMIC CHIP 0.1M ELECT 10MF FILM 0.1M ELECT 330M CERAMIC CHIP 0.00	20% IF 5% IF 20%	25V 50V 50V 16V 50V	D200 D300 D301 D302 D303	8-719-977-46 8-719-025-07 8-719-404-46 8-719-159-06 8-719-977-05	DIODE DTZ13C DIODE 1SV232-TPH3 DIODE MA110 DIODE RD4.75B-T2 DIODE DTZ6.2	
C1509 C1510 C1511	1-124-927-11 1-124-907-11 1-124-927-11 1-164-182-11 1-124-927-11	ELECT 4.7M ELECT 10MF ELECT 4.7M CERAMIC CHIP 0.00 ELECT 4.7M	20% IF 20% I33MF 10%	50V 50V 50V 50V 50V	D304 D305 D306 D307 D308	8-719-801-78 8-719-800-76 8-719-104-34 8-719-404-46 8-719-404-46	DIODE 1SS184 DIODE 1SS226 DIODE 1S2836 DIODE MA110 DIODE MA110	
C1514 C1515 C1516	1-163-197-00 1-130-477-00 1-124-907-11 1-163-063-00 1-126-101-11	CERAMIC CHIP 470P MYLAR 0.00 ELECT 10MF CERAMIC CHIP 0.02 ELECT 100M	33MF 5% 20% 2MF 10%	50V 50V 50V 50V 10V	D309 D310 D311 D313 D314	8-719-404-46 8-719-104-34 8-719-045-70 8-719-801-78	DIODE MA110 DIODE 1S2836 DIODE 1SV230TPH3 DIODE 1SS184 DIODE MA110	
C1519	1-124-477-11 1-163-037-11 1-163-243-11	ELECT 47MF CERAMIC CHIP 0.02 CERAMIC CHIP 47PF	2MF 10%	16V 25V 50V	D315 D317 D320	8-719-404-46	DIODE MA110 DIODE MA110 DIODE MA110	



REF.NO.	PART NO.	DESCRIPTION	REMA	RK R	REF.NO.	PART NO.	DESCRIPTION		F -	REMARK
D322 D323	8-719-404-46 8-719-404-46	DIODE MA110 DIODE MA110		1	D521	8-719-404-46	DIODE MA110			
D324 D325 D326	8-719-404-46 8-719-801-78 8-719-404-46	DIODE MA110 DIODE 1SS184 DIODE MA110		1	D522 D523 D524	8-719-977-05 8-719-404-46 8-719-200-02				
D327	8-719-104-34			!	D525 D526	8-719-200-02 8-719-404-46	DIODE 10E-2			
D332 D333 D335	8-719-404-46 8-719-404-46 8-719-404-46	DIODE MA110 DIODE MA110 DIODE MA110		1	D527 D528	8-719-200-02 8-719-300-76	DIODE 10E-2 DIODE RH-1A			
D337	8-719-404-46	DIODE MAIIO		1	D529 D530	8-719-200-02 8-719-300-76	DIODE 10E-2			
D338 D339 D341	8-719-404-46 8-719-404-46 8-719-159-06	DIODE MA110 DIODE RD4.7SB-T2		1	D532	8-719-800-76	DIODE 1SS226			
D344 D345	8-719-801-78 8-719-104-34	DIODE 1SS184 DIODE 1S2836		1		8-719-302-43 8-719-404-46 8-719-404-46	DIODE ELIZ DIODE MAILO DIODE MAILO			
D346 D347	8-719-104-34 8-719-104-34	DIODE 1S2836 DIODE 1S2836		1	D536	8-719-800-76	DIODE 1SS226			
D360 D361 D362	8-719-104-34 8-719-104-34 8-719-158-40	DIODE 1S2836 DIODE 1S2836 DIODE RD1OSB1			D538	8-719-800-76 8-719-800-76 8-719-404-46	DIODE 1SS226			
D363	8-719-158-40	DIODE RD10SB1		1	D540	8-719-404-46				
D381	8-719-104-34 8-719-404-46 8-719-404-46	DIODE 1S2836 DIODE MA110 DIODE MA110		1	D542 D543	8-719-404-46 8-719-911-19	DIODE MA110 DIODE 1SS119-25			
D401 D404	8-719-404-46 8-719-800-76	DIODE MA110 DIODE 1SS226				<del< td=""><td>AY LINE></td><td>in Maria North</td><td></td><td></td></del<>	AY LINE>	in Maria North		
D405 D406	8-719-801-78 8-719-404-46	DIODE 1SS184 DIODE MA110			DL300	1-415-633-11	DELAY LINE, Y DELAY LINE, Y			
D407 D408	8-719-404-46 8-719-404-46	DIODE MA110 DIODE MA110				1-409-547-11				
D410 D411 D414	8-719-404-46 8-719-404-46 8-719-801-78	DIODE MA110 DIODE MA110 DIODE 1SS184		1		<fil< th=""><th>TER></th><th></th><th></th><th></th></fil<>	TER>			
D415 D416	8-719-801-78 8-719-801-78	DIODE 1SS184 DIODE 1SS184		1	FL300 FL401	1-236-547-11 1-236-364-11	TRAP, LC FILTER, BAND PASS			
D417 D418	8-719-801-78 8-719-801-78	DIODE 1SS184 DIODE 1SS184				<1C>				
D421 D422 D423	8-719-404-46 8-719-404-46 8-719-800-76	DIODE MA110 DIODE MA110 DIODE 1SS226		1	I C101	8-759-287-40 8-759-280-74	IC UPD78013YCW-Y04 IC ST24C02CB1			
D424	8-719-404-46	DIODE MA110		 	IC103 IC104	8-759-008-48 8-759-262-59	IC MC74HC86F IC UPD6451AGT-632-E	2		
D425 D426 D427		DIODE 1SS226 DIODE RD4.7SB-T2 DIODE MA110		į	IC106	8-759-196-70	IC M62358FP-E1 IC M62358FP-E1			
D500	8-719-404-46 8-719-977-03	DIODE MAIIO DIODE DTZ5.6B			IC107 IC108	8-759-196-70 8-759-042-02	IC M62358FP-E1 IC S-80743AL-A7-S IC M62358FP-E1			
D501 D502 D503	8-719-979-80 8-719-404-46	DIODE UF5406 DIODE MA110		1	IC110	8-759-196-70	IC M62358FP-E1			
D504 D505	8-719-901-83 8-719-028-72	DIODE 1SS83 DIODE RGP02-17EL-6433		1	I C200	8-759-009-22 8-759-420-04 8-752-053-21	IC MC14094BF IC AN5265 IC CXA1211M			
D506 D507	8-719-945-80 8-719-800-76	DIODE ERCO6-15S DIODE 1SS226		1	IC302	8-759-998-98	IC LM358D IC SN74HC4040ANS			
	8-719-800-76 8-719-404-46 8-719-302-43	DIODE 1SS226 DIODE MA110 DIODE EL1Z		1	IC305	8-759-932-67 8-759-631-08	IC BU4053BCF IC M51279FP			
D512 D513	8-719-979-80 8-719-404-46	DIODE UF5406 DIODE MA110		1	IC307	8-759-509-05	IC NJM2245M IC XRU4066BCF IC NJM2245M			
D514 D515	8-719-971-20 8-719-971-20	DIODE ERC38-06 DIODE ERC38-06		1	I C310	8-759-932-67	IC BU4053BCF			
D517	8-719-404-46 8-719-404-46	DIODE MA110 DIODE MA110		!	I C312 I C313	8-759-008-67 8-759-711-32 8-759-287-89	IC MC14066BF IC NJM2245M IC MM1113XFF			
D518	8-719-404-46 8-719-404-46 8-719-801-78	DIODE MA110 DIODE MA110 DIODE 1SS184		. [I C314		IC MM1113XFF			
U 14U	0 117 001 10	DIODE 122104			. 4717	0 137 736 01	. 0 001033001			



The components identified by shading and mark A are critical for safety.

Replace only with part number specified.

Les composants identifies par une trame et une marque \(\frac{\Delta}{2} \) sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

REF.NO.	PART NO.	DESCRIPTION		REMARK	REF.NO.	PART NO.	DESCRIPTION		REMARK
IC316 IC317 IC318 IC319 IC320	8-759-084-76 8-759-009-51 8-759-009-67 8-759-509-05 8-759-287-89	IC MM1111XF IC MC14538BF IC MC14584BF IC XRU4066BCF IC MM1113XFF			L406 L407 L408 L409 L500	1-408-419-00 1-408-413-00 1-408-413-00 1-410-214-31 1-459-155-00	INDUCTOR INDUCTOR INDUCTOR INDUCTOR CHIP COIL (WITH COR	68UH 22UH 22UH 68UH E) 45UH	
IC321 IC322 IC323 IC324 IC325	8-759-287-89 8-759-287-89 8-759-287-89 8-759-287-89 8-759-287-89	IC MM1113XFF IC MM1113XFF IC MM1113XFF IC MM1113XFF IC MM1113XFF			L501 L502 L503 L504 L505	1-407-365-00 1-407-365-00 1-410-093-11 1-410-666-31 1-410-671-31	INDUCTOR INDUCTOR	33MMH 18UH 47UH	
IC326 IC327 IC350 IC401 IC402	8-759-060-00 8-759-084-76 8-759-100-96 8-759-196-69 8-752-053-21	IC BA10324AF IC MM1111XF IC UPC4558G2 IC BA7655AF-E2 IC CXA1211M			L507 L508 L509 L511 L512 Δ	1-459-075-11	INDUCTOR COIL, DYNAMIC COIL, DUST CORE	1MMH 27UH ONVERSION CHOKE E) 45UH	
IC403 IC404 IC405 IC406 IC407	8-759-008-67 8-752-052-62 8-759-932-67 8-759-998-98 8-759-008-67	IC MC14066BF IC CXA1478S IC BU4053BCF IC LM358D IC MC14066BF			L515	1-459-104-00 1-459-059-00 .1-4 59-760-13	INDUCTOR COIL, DUST CORE COIL, HORIZONT INDUCTOR	E	
IC408 IC409 IC410 IC411 IC412	8-759-509-91 8-759-060-00 8-759-009-06 8-759-008-92 8-759-932-67	IC XRA10393F IC BA10324AF IC MC14052BF IC MC14024BF IC BU4053BCF			NL500	<neo 1-519-526-11</neo 	N LAMP> LAMP, NEON		
IC413	8-759-932-67	IC BU4053BCF				<tra< td=""><td>NSISTOR></td><td></td><td>- "</td></tra<>	NSISTOR>		- "
IC502	8-759-009-51	IC H8D7248 IC MC14538BF IC MC14538BF IC CXA1211M			Q101 Q102 Q103 Q104	8-729-216-22 8-729-216-22 8-729-907-26	TRANSISTOR DTC TRANSISTOR 2SA TRANSISTOR 2SA TRANSISTOR IMX	1162-G 1162-G 1	
I C505 I C506	8-759-520-07 8-759-009-51	IC MC14538BF			Q105	8-729-901-06	TRANSISTOR DTA		
1C507 1C508 1C509	8-759-100-60 8-752-053-21 8-759-998-98	IC UPC1377C IC CXA1211M IC LM358D			Q107 Q108 Q109 Q110 Q111	8-729-422-29	TRANSISTOR DTA TRANSISTOR 2SD TRANSISTOR 2SD TRANSISTOR 2SD TRANSISTOR DTA	601A 601A 601A	
IC510	8-759-009-51	1C MC140000r			Q112	8-729-422-29	TRANSISTOR 2SD		
	<con< td=""><td>DCTOR CHIP></td><td></td><td></td><td>Q113 Q114</td><td>8-729-422-29 8-729-120-28</td><td>TRANSISTOR 2SD TRANSISTOR 2SC</td><td>601A</td><td></td></con<>	DCTOR CHIP>			Q113 Q114	8-729-422-29 8-729-120-28	TRANSISTOR 2SD TRANSISTOR 2SC	601A	
JR302	1-216-295-91	CONDCTOR, CHIP			Q115 Q200	8-729-120-28 8-729-140-96	TRANSISTOR 2SC TRANSISTOR 2SD	1623-L5L6	
	<001	L>			Q201	8-729-422-29	TRANSISTOR 2SD		
L101 L102 L104 L105	1-408-609-41 1-408-417-00 1-408-425-00 1-410-482-31	INDUCTOR INDUCTOR INDUCTOR INDUCTOR INDUCTOR	33UH 47UH 22OUH 100UH		Q300 Q301 Q302 Q303	8-729-422-29 8-729-422-29 8-729-422-37 8-729-422-29	TRANSISTOR 2SD TRANSISTOR 2SD TRANSISTOR 2SB TRANSISTOR 2SD	601A 709A-R	
L300	1-410-478-11	INDUCTOR	47UH		Q305 Q306	8-729-422-29 8-729-422-29	TRANSISTOR 2SDOTRANSISTOR 2SDO	601A 601A	
L305 L308 L309 L311	1-410-196-11 1-410-466-41 1-410-470-11 1-410-470-11	INDUCTOR CHIP INDUCTOR INDUCTOR INDUCTOR	2.2UH 4.7UH 10UH 10UH		Q307 Q308 Q309	8-729-422-29 8-729-422-29 8-729-422-37	TRANSISTOR 2SDO TRANSISTOR 2SDO TRANSISTOR 2SB	601A 601A	
L312	1-412-011-31	INDUCTOR CHIP	27UH		Q310 Q311	8-729-422-37 8-729-422-37	TRANSISTOR 2SB' TRANSISTOR 2SB'	709A-R	
L314 L316 L317 L319	1-412-011-31 1-412-011-31 1-410-090-41 1-408-421-00	INDUCTOR CHIP INDUCTOR CHIP INDUCTOR INDUCTOR	27UH 27UH 18MMH 100UH		Q312 Q313 Q314	8-729-422-29 8-729-422-37 8-729-901-06	TRANSISTOR 2SB' TRANSISTOR DTA	709A-R 144EK	
L320	1-410-682-31	INDUCTOR	470UH		Q315 Q316	8-729-422-37 8-729-422-29	TRANSISTOR 2SB' TRANSISTOR 2SB' TRANSISTOR 2SB'	601A	
L401 L402 L403	1-410-478-11 1-410-216-31 1-410-216-31	INDUCTOR INDUCTOR CHIP INDUCTOR CHIP	47UH 100UH 100UH		Q318 Q319 Q320	8-729-422-37 8-729-422-29 8-729-120-28	TRANSISTOR 2SB' TRANSISTOR 2SD TRANSISTOR 2SC	601A	
L404 L405	1-410-216-31 1-410-216-31 1-408-419-00	INDUCTOR CHIP	100UH 68UH		Q321	8-729-422-29	TRANSISTOR 2SD	601A	
					Q322	8-729-422-29	TRANSISTOR 2SD	601A	



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION			REMARK
Q323 Q324	8-729-901-01	TRANSISTOR DTC144EK		Q417	8-729-422-37	TRANSISTOR 2	SB709A-R		
Q325 Q326	8-729-422-29 8-729-422-29	TRANSISTOR 2SD601A TRANSISTOR 2SD601A		Q418 Q419	8-729-120-28 8-729-422-37	TRANSISTOR 25	SC1623-L5L6 SB709A-R		
Q327	8-729-422-37	TRANSISTOR 2SB709A-R		Q420 Q421	8-729-422-37 8-729-901-01	TRANSISTOR 2:	SB709A-R TC144EK		
Q328 Q329	8-729-141-53 8-729-141-53	TRANSISTOR 2SK94-X2X3X4 TRANSISTOR 2SK94-X2X3X4		Q422	8-729-120-28	TRANSISTOR 2	SC1623-L5L6		
Q330 Q331 Q332	8-729-422-37 8-729-422-37	TRANSISTOR 2SB709A-R TRANSISTOR DTC144EK		Q424 Q424	8-729-901-01 8-729-901-01	TRANSISTOR D'	TC144EK TC144EK		
Q333	8-729-422-29	TRANSISTOR 2SD601A		Q426 Q428	8-729-901-01 8-729-422-37	TRANSISTOR D'TRANSISTOR 2	TC144EK SB709A-R		
Q335 Q338	8-729-422-29 8-729-422-29	TRANSISTOR 2SD601A TRANSISTOR 2SD601A		Q429	8-729-422-37	TRANSISTOR 2	SB709A-R		
Q339 Q341	8-729-422-37 8-729-920-39	TRANSISTUR 2SB709A-R TRANSISTOR IMT1US		Q431 0432	8-729-422-29 8-729-422-29 8-729-422-29	TRANSISTOR 25	SD601A SD601A		
Q342 Q343	8-729-920-39 8-729-920-39	TRANSISTOR IMT1US		Q433	8-729-901-01	TRANSISTOR D	TC144EK		
Q345 Q350	8-729-422-29 8-729-422-37	TRANSISTOR 2SD601A TRANSISTOR 2SB709A-R		Q434 Q435	8-729-422-29 8-729-901-01	TRANSISTOR 25	SD601A TC144EK		
Q351	8-729-422-29	TRANSISTOR 2SD601A		Q436 Q437	8-729-901-01 8-729-901-01	TRANSISTUR D'	TC144EK TC144EK		
Q352 Q353 Q354	8-729-422-29 8-729-422-29	TRANSISTUR ZSD601A TRANSISTOR 2SD601A TRANSISTOR 2SD601A		0439	8-729-216-22	TRANSISTOR 2	SA1162-G		
0355 0356	8-729-422-29 8-729-901-01	TRANSISTOR 2SD601A TRANSISTOR DTC144EK		Q440 Q441	8-729-422-29 8-729-141-53	TRANSISTOR 2: TRANSISTOR 2:	SD601A SK94-X2X3X4		
Q357	8-729-422-29	TRANSISTOR 2SD601A		Q442 Q443	8-729-422-29 8-729-216-22	TRANSISTOR 2:	SD601A SA1162-G		
Q358 Q359	8-729-422-29 8-729-422-37	TRANSISTUR 2SD601A TRANSISTOR 2SB709A-R		Q444 0445	8-729-422-29	TRANSISTOR 25	SD601A		
Q360 Q361	8-729-901-06	TRANSISTOR DTA144EK		0500 0501	8-729-422-37 8-729-821-87	TRANSISTOR 2:	SB709A-R SD1878-CA		
Q362 Q363	8-729-422-29 8-729-422-29	TRANSISTOR DTC144EK TRANSISTOR DTC144EK TRANSISTOR ZSD601A TRANSISTOR ZSD601A TRANSISTOR ZSB709A-R TRANSISTOR ZSK94-X2X3X4 TRANSISTOR ZSK94-X2X3X4 TRANSISTOR ZSK94-X2X3X4 TRANSISTOR ZSB709A-R TRANSISTOR ZSB709A-R TRANSISTOR ZSB709A-R TRANSISTOR ZSD601A TRANSISTOR ZSD601A TRANSISTOR ZSD601A TRANSISTOR IMT1US TRANSISTOR IMT1US TRANSISTOR IMT1US TRANSISTOR IMT1US TRANSISTOR ZSD601A		Q502	8-729-119-80	TRANSISTOR 2	SC2688-LK		
Q364 Q366	8-729-901-01 8-729-422-37	TRANSISTOR DTC144EK TRANSISTOR 2SB709A-R		Q505 0506	8-729-313-42 8-729-422-29 8-729-422-29	TRANSISTUR 2	SD1134-L SD601A SD6014		
Q367 Q368	8-729-422-37 8-729-422-37	TRANSISTOR 2SB709A-R		Q507 Q508	8-729-422-29 8-729-422-29 8-729-422-37	TRANSISTOR 2: TRANSISTOR 2: TRANSISTOR 2:	SD601A SB709A-R		
Q369 Q372	8-729-901-06 8-729-901-01	TRANSISTOR DTA144EK TRANSISTOR DTC144EK		Q509	8-729-901-06	IKANSISIUK D	IA144EK		
Q376 Q377	8-729-901-01 8-729-901-06	TRANSISTOR DTC144EK TRANSISTOR DTA144EK		Q510 Q511	8-729-422-29	TRANSISTOR D' TRANSISTOR 2' TRANSISTOR 2'	SD601A		
Q378 Q380		TRANSISTOR DTC144EK TRANSISTOR DTC144EK		Q513	8-729-122-03	TRANSISTOR 2	SA1220A-P		
Q381 Q382	8-729-901-01	TRANSISTOR DTC144EK TRANSISTOR DTC144EK			8-729-169-02	TRANSISTOR D'TRANSISTOR 2	SC2690A-Q		
Q383	8-729-901-01	TRANSISTUR DTC144EK		Q517 Q518	8-729-901-01	TRANSISTOR D'TRANSISTOR D'	TC144EK		
Q384 Q385	8-729-901-01 8-729-901-01	TRANSISTOR DTC144EK TRANSISTOR DTC144EK TRANSISTOR DTC144EK		Q519 Q520	8-729-901-01 8-729-021-82	TRANSISTOR D' TRANSISTOR 2			
Q386 Q401 Q402	8-729-901-01 8-729-422-29 8-729-422-29	TRANSISTOR 2SD601A TRANSISTOR 2SD601A		Q522 Q523	8-729-422-29 8-729-422-29	TRANSISTOR 2:	SD601A SD601A		
Q403	8-729-901-01	TRANSISTOR DTC144EK		Q524 Q525	8-729-119-78 8-729-119-76	TRANSISTOR 2:	SC2785-HFE		
Q404 Q405	8-729-422-37 8-729-422-37	TRANSISTOR 2SB709A-R TRANSISTOR 2SB709A-R TRANSISTOR 2SB709A-R		Q526 Q527	8-729-422-37	TRANSISTOR 2			
Q406 Q407	8-729-422-29 8-729-422-29	TRANSISTOR 2SD601A TRANSISTOR 2SD601A		1202			220011		
Q408 Q409	8-729-422-37 8-729-422-37	TRANSISTOR 2SB709A-R TRANSISTOR 2SB709A-R		h		ISTOR>	100 ===	1 /102	
Q410 Q411	8-729-907-26 8-729-422-29	TRANSISTOR IMX1 TRANSISTOR 2SD601A TRANSISTOR 2SA1162-G		R101 R102 R103	1-216-025-91 1-216-025-91 1-216-025-91	METAL GLAZE METAL GLAZE METAL GLAZE	100 5% 100 5% 100 5%	1/10W 1/10W 1/10W	
Q412 Q413	8-729-216-22 8-729-141-53	TRANSISTOR 2SA1162-G TRANSISTOR 2SK94-X2X3X4		R104 R105	1-216-073-00 1-216-059-00	METAL GLAZE METAL GLAZE	10K 5% 2.7K 5%	1/10W 1/10W	
Q414 Q415	8-729-422-37 8-729-422-37	TRANSISTOR 2SB709A-R TRANSISTOR 2SB709A-R		R106	1-216-065-00	METAL GLAZE	4.7K 5%	1/10W	
Q416	8-729-422-37	TRANSISTOR 2SB709A-R		R107	1-216-065-00	METAL GLAZE	4.7K 5%	1/10W	



REF.NO. PART NO.	DESCRIPTION			REMARK	REF.NO.	PART NO.	DESCRIPTION				REMARK
R108 1-216-065-00 R109 1-216-065-00 R110 1-216-073-00 R113 1-216-085-00 R116 1-218-761-11	METAL GLAZE 10	.7K 5% OK 5% BK 5% 4OK 0.50%	1/10W 1/10W 1/10W 1/10W 1/10W		R308 R311 R312 R313	1-216-065-00 1-216-055-00 1-216-073-00 1-216-649-11 1-216-099-00		10K 820	5% 5% 0.50%	1/10W 1/10W 1/10W 1/10W 1/10W	
R117 1-216-089-00 R119 1-216-689-11 R124 1-216-295-91 R130 1-216-099-00 R132 1-216-065-00		20K 5% 7K 5%	1/10W 1/10W 1/10W 1/10W		R314 R315 R316 R317 R318 R320 R321	1-216-099-00 1-216-099-00 1-216-049-91 1-216-057-00 1-216-049-91 1-216-057-00 1-216-051-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	120K 120K 120K 1K 2.2K 1K 2.2K 1.2K	5%	1/10W 1/10W 1/10W 1/10W 1/10W	
R133 1-216-091-00 R134 1-216-065-00 R135 1-216-085-00 R137 1-216-065-00 R140 1-216-033-00		.7K 5% 3K 5% .7K 5%	1/10W 1/10W 1/10W 1/10W 1/10W		1	1-216-051-00 1-216-035-00 1-216-109-00 1-216-101-00 1-216-037-00 1-216-033-00	METAL GLAZE		5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W 1/10W	
R141 1-216-085-00 R144 1-216-295-91 R149 1-216-065-00 R151 1-216-061-00 R154 1-216-065-00 R155 1-216-083-00	CONDCTOR, CHIP METAL GLAZE 4. METAL GLAZE 3. METAL GLAZE 4.	7K 5% 3K 5% 7K 5%	1/10W 1/10W 1/10W			1-216-121-00 1-216-055-00 1-216-089-00 1-216-093-00 1-216-097-00		1M 1.8K 47K	5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	
R157 1-216-065-00 R158 1-216-295-91 R159 1-216-063-00 R160 1-216-061-00 R161 1-216-089-00		.9K 5% .3K 5%	1/10W 1/10W 1/10W 1/10W		1	1-216-097-00 1-216-093-00 1-216-083-00 1-216-065-00 1-216-065-00		100K	5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	
R162 1-216-065-00 R163 1-216-065-00 R164 1-216-067-00 R165 1-216-295-91 R167 1-216-061-00	METAL GLAZE 3	.7K 5% .6K 5%	1/10W 1/10W 1/10W		R346 R349 R350 R351	1-216-063-00 1-216-057-00 1-216-694-11 1-216-085-00 1-216-061-00	METAL GLAZE METAL GLAZE METAL CHIP METAL GLAZE METAL GLAZE	62K	5% 0.50% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	
R168 1-216-085-00 R169 1-216-107-00 R171 1-216-031-00 R172 1-216-295-91 R176 1-216-089-00	METAL GLAZE 18 CONDCTOR, CHIP	70K 5% 30 5% 7K 5%	1/10W 1/10W 1/10W		R354 R357 R366 R371 R372	1-216-123-11 1-216-121-00 1-216-065-00 1-216-025-91 1-216-073-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	1.2M 1M 4.7K 100 10K	5%%%%% 55%%%%%%%%%%%%%%%%%%%%%%%%%%%%%	1/10W 1/10W 1/10W 1/10W 1/10W	
R177 1-216-065-00 R178 1-216-089-00 R181 1-216-065-00 R184 1-216-649-11 R185 1-216-073-00	METAL GLAZE 47 METAL GLAZE 4. METAL CHIP 82	7K 5% .7K 5% 20 0.50%	1/10W 1/10W 1/10W 1/10W 1/10W		R373 R374	1-216-645-11 1-216-647-11 1-216-073-00 1-216-111-00 1-216-114-00	METAL CHIP METAL CHIP METAL GLAZE METAL GLAZE METAL GLAZE	680	5%	1/10W 1/10W 1/10W 1/10W 1/10W	
R187 1-216-061-00 R189 1-216-073-00 R190 1-216-049-91 R192 1-216-073-00	METAL GLAZE 10 METAL GLAZE 10 METAL GLAZE 10 METAL GLAZE 8.	0K 5% 0K 5% 0K 5%	1/10W 1/10W 1/10W		R379 R380 R381 R382 R386	1-216-067-00 1-216-065-00 1-216-689-11 1-216-101-00 1-216-091-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	39K 150K	5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	
R195 1-216-071-00 R197 1-216-061-00 R199 1-216-295-91 R200 1-208-817-11 R201 1-216-049-91 R202 1-212-857-00	METAL GLAZE 3. CONDCTOR, CHIP METAL CHIP 3C METAL GLAZE 1K FUSIBLE 1C	.3K 5% OK 0.50% K 5%	1/10W 1/10W 1/10W	F	R387 R388 R389 R390 R393	1-216-029-00 1-216-039-00 1-216-649-11 1-249-393-11 1-216-073-00	METAL GLAZE METAL GLAZE METAL CHIP CARBON METAL GLAZE	820 10	5% 0.50% 5%	1/10W 1/10W 1/10W 1/4W 1/10W	F
R203 1-260-095-11 R204 1-260-072-11 R205 1-216-647-11 R206 1-216-073-00	CARBON 47 CARBON 4. METAL CHIP 68 METAL GLAZE 10 METAL GLAZE 4.	.7 5% 30 0.50% 0K 5%	1/2W 1/2W 1/10W 1/10W		R394 R395 R397 R398 R399	1-216-083-00 1-216-651-11 1-216-113-00 1-216-105-91 1-216-111-00	METAL GLAZE METAL CHIP METAL GLAZE METAL GLAZE METAL GLAZE	1 K 470 K	0.50% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	
R208 1-216-065-00 R209 1-216-073-00 R210 1-216-061-00 R211 1-249-393-11	METAL GLAZE 4. METAL GLAZE 10	.7K 5% OK 5% .3K 5%	1/10W 1/10W 1/10W 1/4W 1/4W	F	R400 R401 R402 R403 R404	1-216-113-00 1-216-053-00 1-216-053-00 1-216-069-00 1-216-029-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	470K 1.5K 1.5K	5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	
R237 1-216-089-00 R302 1-216-025-91 R304 1-216-025-91 R307 1-216-115-00	METAL GLAZE 10 METAL GLAZE 10		1/10W 1/10W 1/10W		R406 R407	1-216-083-00 1-216-085-00	METAL GLAZE METAL GLAZE	27K 33K	5% 5%	1/10W 1/10W	

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REF.NO.	PART NO.	DESCRIPTION		-		REMARK	REF.NO.	PART NO.	DESCRIPTION				REMAR	ìK
R408	1-216-689-11	METAL CHIP	39K	0.50%	1/10W		R480	1-216-077-00	METAL GLAZE	15K	5%	1/10W		
R410 R411 R412 R413	1-216-069-00 1-216-033-00 1-216-089-00 1-208-799-11	METAL GLAZE METAL GLAZE METAL GLAZE METAL CHIP	6.8K 220 47K 5.1K	5% 5% 5% 0.50%			R481 R482 R483 R484	1-216-033-00 1-216-057-00 1-216-025-91 1-216-651-11	METAL GLAZE METAL GLAZE METAL GLAZE METAL CHIP	220 2.2K 100 1K	5% 5% 5% 0.50%	1/10W 1/10W 1/10W 1/10W		
R416 R417 R418 R419 R420	1-216-113-00 1-216-665-11 1-216-667-11 1-216-065-00 1-216-689-11	METAL GLAZE METAL CHIP METAL CHIP METAL GLAZE METAL GLAZE	470K 3.9K 4.7K 4.7K 39K	5% 0.50% 0.50% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W		R485 R486 R487 R488 R489	1-216-033-00 1-208-812-11 1-208-784-11 1-216-073-00 1-216-077-00	METAL GLAZE METAL CHIP METAL CHIP METAL GLAZE METAL GLAZE	220 18K 1.2K 10K 15K	0.50% 0.50% 5%	1/10W 1/10W 1/10W 1/10W 1/10W		
R422 R423 R424 R425	1-216-073-00 1-216-073-00 1-216-033-00 1-216-049-91	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	10K 10K 220 1K	555555555555555555555555555555555555555	1/10W 1/10W 1/10W 1/10W		R490 R491 R492	1-216-057-00 1-216-061-00 1-216-085-00 1-216-295-91	METAL GLAZE METAL GLAZE METAL GLAZE CONDCTOR, CHI	2.2K 3.3K 33K	5% 5% 5%	1/10W 1/10W 1/10W		
R426 R427	1-216-039-00	METAL GLAZE METAL GLAZE	390 220	5% 5%	1/10W 1/10W		R493 R494 R495	1-216-293-91 1-216-085-00 1-216-651-11	METAL GLAZE METAL CHIP	33K 1K	5% 0.50%	1/10W 1/10W		
R428 R429 R430 R431	1-216-097-00 1-216-073-00 1-216-119-00 1-216-097-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	100K 10K 820K 100K	5% 5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W		R496 R497 R498 R499	1-216-073-00 1-208-784-11 1-216-061-00 1-216-033-00	METAL GLAZE METAL CHIP METAL GLAZE METAL GLAZE	10K 1.2K 3.3K 220	5% 0.50% 5% 5%	1/10W 1/10W		
R432 R434 R435 R436 R437	1-216-089-00 1-216-109-00 1-216-105-91 1-216-113-00 1-216-097-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	47K 330K 220K 470K 100K	5% 5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W		R500 R501 R502 R503	1-216-689-11 1-216-077-00 1-216-677-11 1-249-430-11	METAL GLAZE METAL GLAZE METAL CHIP CARBON	39K 15K 12K 12K	5%	1/10W 1/10W 1/10W 1/4W		
R438	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W 1/10W		R504 R505	1-216-111-00 1-216-067-00	METAL GLAZE METAL GLAZE	390K 5.6K	5% 5%	1/10W 1/10W		
R439 R440 R441 R442	1-216-033-00 1-216-049-91 1-216-645-11 1-216-647-11	METAL GLAZE METAL GLAZE METAL CHIP METAL CHIP	220 1K 560 680	0.50%	1/10W 1/10W 1/10W		R506 R507 R508 R509	1-216-073-00 1-216-083-00 1-216-105-91 1-216-089-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	10K 27K 220K 47K	5% 5% 5%	1/10W 1/10W 1/10W 1/10W		
R443 R444 R445 R447 R448	1-216-049-91 1-216-105-91 1-216-095-00 1-216-069-00 1-216-049-91	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	1K 220K 82K 6.8K 1K	5% 5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W		R510 R511 R512 R513	1-216-097-00 1-216-099-00 1-216-055-00 1-216-295-91	METAL GLAZE METAL GLAZE METAL GLAZE CONDCTOR, CHI	100K 120K 1.8K	5% 5% 5%	1/10W 1/10W 1/10W		
R449	1-216-073-00	METAL GLAZE	10K 1M	5% 5%	1/10W 1/10W		R514 R515	1-216-295-91 1-208-806-11	CONDCTOR, CHI	P 10K	0.50%	1/10W		
R450 R451 R452 R453	1-216-121-00 1-216-037-00 1-216-651-11 1-216-097-00	METAL GLAZE METAL GLAZE METAL CHIP METAL GLAZE	330 1K 100K	5% 0.50% 5%	1/10W 1/10W 1/10W		R516 R517 R518 R519	1-216-103-91 1-214-888-00 1-260-123-11 1-216-017-00	METAL GLAZE METAL CARBON METAL GLAZE	180K 10K 100K 47	5% 5% 5%	1/10W 1/2W 1/2W 1/10W	r	
R455 R456 R457	1-216-085-00 1-216-053-00 1-216-025-91	METAL GLAZE METAL GLAZE METAL GLAZE	33K 1.5K 100	5% 5% 5%	1/10W 1/10W 1/10W		R520 R521	1-249-423-11 1-216-065-00	CARBON METAL GLAZE	3.3K 4.7K		1/10W	F	
R458 R459	1-216-113-00 1-216-649-11 1-216-295-91	METAL GLAZE METAL CHIP CONDCTOR, CHI	470K 820	5%	1/10W 1/10W		R522 R523 R524 R525	1-260-111-11 1-215-892-11 1-216-093-00 1-216-069-00	CARBON METAL OXIDE METAL GLAZE METAL GLAZE	10K 1K 68K 6.8K	5% 5% 5% 5%	1/2W 2W 1/10W 1/10W	F	
R460 R462 R463 R464 R465	1-216-651-11 1-216-065-00 1-216-065-00 1-216-025-91	METAL CHIP METAL GLAZE METAL GLAZE METAL GLAZE	1K 4.7K 4.7K 100	5% 5% 5%	1/10W 1/10W 1/10W 1/10W		R526 R527 R528 R529	1-216-089-00 1-216-089-00 1-216-089-00 1-216-089-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	47K 47K 47K 47K	5% 5% 5%	1/10W 1/10W 1/10W 1/10W		
R466 R467 R468 R469 R470	1-216-077-00 1-216-121-00 1-216-105-91 1-216-063-00 1-216-069-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	15K 1M 220K 3.9K 6.8K	5%%%%% 5555555555	1/10W 1/10W 1/10W 1/10W 1/10W		R530 R531 R532 R533	1-216-367-11 1-216-077-00 1-215-919-11 1-247-723-11	METAL OXIDE METAL GLAZE METAL OXIDE CARBON	0.68 15K 2.2K 6.8K	5% 5%	2W 1/10W 3W 1/4W	F	
R471 R472	1-216-109-00 1-216-077-00	METAL GLAZE METAL GLAZE	330K 15K	5% 5%	1/10W 1/10W		R534 R535	1-216-085-00 1-249-448-11	METAL GLAZE CARBON	33K 1.2	5% 5%	1/10W 1/4W	F	
R473 R474 R475	1-216-121-00 1-216-649-11 1-216-025-91	METAL GLAZE METAL CHIP METAL GLAZE	1M 820 100	5% 0.50% 5%	1/10W 1/10W 1/10W		R536 R537 R539 R540	1-216-101-00 1-216-089-00 1-216-065-00 1-216-113-00	METAL GLAZE METAL GLAZE	150K 47K 4.7K 470K 1.5	5% 5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/4W		
R476 R477 R478 R479	1-216-061-00 1-216-061-00 1-216-073-00 1-216-085-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	3.3K 3.3K 10K 33K	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W		R541 R542 R543	1-249-383-11 1-216-057-00 1-212-883-00		2.2K 120	5% 5%	1/4W 1/10W 1/4W		



REF.NO.	PART NO.	DESCRIPTION				REMARK	REF.NO.	PART NO.	DESCRIPTION				REMARK
R544 R545 R546 R547 R548	1-216-095-00 1-216-073-00 1-249-425-11 1-216-091-00 1-216-057-00	METAL GLAZE METAL GLAZE CARBON METAL GLAZE METAL GLAZE	82K 10K 4.7K 56K 2.2K	5% 5% 5% 5%	1/10W 1/10W 1/4W 1/10W 1/10W		R1120 R1123 R1124	1-216-694-11 1-216-089-00 1-216-071-00 1-216-113-00 1-216-049-91		62K 47K 8.2K 470K 1K	5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	
R549 R550 R551 R552 R553	1-216-677-11 1-216-053-00 1-216-077-00 1-216-033-00 1-216-083-00	METAL CHIP METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	12K 1.5K 15K 220 27K	5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W		R1126 R1128 R1129 R1130 R1131 R1132	1-216-041-00 1-216-065-00 1-216-071-00 1-216-049-91 1-216-049-91	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	470 4.7K 8.2K 1K 1K	555 55555555555555555555555555555555555	1/10W 1/10W 1/10W 1/10W 1/10W	
R554 R555 R556 R558 R559	1-216-095-00 1-208-823-11 1-215-899-11 1-247-711-11 1-216-109-00	METAL GLAZE METAL CHIP METAL OXIDE CARBON METAL GLAZE METAL GLAZE	15K 680 330K	0.50% 5% 5% 5%	2W 1/4W 1/10W	F	R1134 R1136	1-216-071-00 1-216-069-00 1-216-073-00 1-216-097-00 1-216-073-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	8.2K 6.8K 10K 100K 10K 22K	5%	1/10W 1/10W 1/10W 1/10W 1/10W 1/10W	
R560 R561 R563 R564 R565	1-216-091-00 1-216-049-91 1-216-017-00 1-216-107-00 1-216-033-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE		5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W		R1139 R1140 R1141 R1142	1-216-055-00 1-208-784-11 1-216-083-00 1-208-784-11	METAL GLAZE METAL CHIP METAL GLAZE METAL CHIP	1.8K 1.2K 27K		1/10W 1/10W 1/10W	
R566 R567 R568 R569 R571	1-216-685-11 1-216-081-00 1-216-073-00 1-260-114-11 1-216-065-00	METAL CHIP METAL GLAZE METAL GLAZE CARBON METAL GLAZE	22K 10K 18K 4.7K	0.50% 5% 5% 5%	1/10W 1/10W 1/10W 1/2W 1/10W		R1144 R1145 R1146 R1147	1-216-073-00 1-216-081-00 1-216-085-00 1-208-784-11 1-216-083-00 1-208-784-11 1-208-784-11 1-216-073-00 1-216-067-00 1-216-057-00 1-216-057-00 1-216-065-00	METAL CHIP METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	1.2K 10K 5.6K 2.2K 2.2K 4.7K		1/10W 1/10W 1/10W 1/10W	
R572 R573 R574 R575 R576	1-216-059-00 1-216-071-00 1-216-689-11 1-249-383-11 1-216-101-00	METAL GLAZE METAL GLAZE METAL GLAZE CARBON METAL GLAZE	2.7K 8.2K 39K 1.5 150K	·) /a	1/10W 1/10W 1/10W 1/4W 1/10W	F	R1150 R1151 R1155	1-216-037-00 1-216-081-00 1-216-133-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	4.7K 330 22K 3.3M 1M	5% 5% 5% 0.50%	1/10W 1/10W 1/10W 1/10W 1/10W	
R578 R580 R582 R583 R584	1-208-824-11 1-216-105-91 1-216-085-00 1-216-039-00 1-216-071-00	METAL CHIP METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	56K 220K 33K 390 8.2K	0.50% 5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W		R1163 R1164 R1165	1-218-776-11 1-218-768-11 1-216-033-00 1-216-049-91 1-216-049-91 1-216-097-00	METAL CHIP METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	470K 220 1K 1K 100K	0.50% 5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	
R585 R586 R587 R588 R589	1-216-033-00 1-208-817-11 1-208-806-11 1-216-077-00 1-216-067-00	METAL GLAZE METAL CHIP METAL CHIP METAL GLAZE METAL GLAZE	10K	5% 0.50% 0.50% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W		R1168	1-216-097-00 1-216-097-00 1-216-089-00 1-216-085-00 1-216-085-01 1-216-295-91	METAL GLAZE	100K 47K 33K		1/10W 1/10W 1/10W 1/10W 1/10W	
R590 R591 R592 R593 R594	1-216-081-00 1-208-814-11 1-247-688-11 1-216-647-11 1-260-104-91	CARBON	10	5% 0.50% 5% 0.50% 5%	1/10W 1/10W 1/4W 1/10W 1/2W	F	R1173 R1177 R1179 R1180 R1182	1-216-295-91 1-216-071-00 1-216-041-00 1-216-089-00 1-216-131-11	CONDCTOR, CHI METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	8.2K 470 47K 2.7M		1/10W 1/10W 1/10W 1/10W	
R595 R596 R597 R598 R599	1-216-689-11 1-214-754-00 1-249-417-11 1-216-085-00 1-216-645-11	METAL GLAZE METAL CARBON METAL GLAZE METAL CHIP	39K 11K 1K 33K 560	1% 5%	1/10W 1/4W 1/4W 1/10W 1/10W	F	R1183 R1184 R1185 R1186 R1187	1-216-071-00 1-216-131-11 1-216-071-00 1-216-131-11 1-216-071-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	8.2K 2.7M 8.2K 2.7M 8.2K	5% 5% 5% 5% 5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	
R1103 R1104 R1105 R1106 R1107	1-216-077-00 1-216-699-11 1-216-073-00 1-216-097-00 1-216-059-00	METAL GLAZE METAL CHIP METAL GLAZE METAL GLAZE METAL GLAZE	15K 100K 10K 100K 2.7K	0.50% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W		R1188 R1189 R1190 R1191	1-216-131-11 1-216-071-00 1-216-131-11 1-216-071-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	2.7M 8.2K 2.7M 8.2K	5% 5% 5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W	
R1111 R1112 R1113	1-208-812-11 1-216-065-00 1-216-065-00 1-216-081-00 1-216-049-91	METAL CHIP METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	18K 4.7K 4.7K 22K 1K	5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W		R1192 R1193 R1194 R1195 R1196	1-216-131-11 1-216-025-91 1-216-085-00 1-216-025-91 1-216-085-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	2.7M 100 33K 100 33K	5% 5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	
R1116 R1117	1-216-049-91 1-216-677-11 1-216-069-00 1-216-113-00	METAL GLAZE METAL CHIP METAL GLAZE METAL GLAZE	1K 12K 6.8K 470K	5% 0.50% 5%	1/10W 1/10W 1/10W 1/10W		R1197 R1198 R1304 R1305	1-216-025-91 1-216-085-00 1-216-689-11 1-216-033-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	100 33K 39K 220	5% 5% 5%	1/10W 1/10W 1/10W 1/10W	



REF.NO.	PART NO.	DESCRIPTION				REMARK	REF.NO.	PART NO.	DESCRIPTION				REMARK	
R1306 R1307	1-216-645-11 1-216-091-00	METAL CHIP METAL GLAZE	560 56K	5%	1/10W 1/10W			1-216-645-11		560	0.50%			
R1308 R1309 R1311	1-216-645-11 1-216-025-91 1-216-089-00	METAL CHIP METAL GLAZE METAL GLAZE	560 100 47K	5% 5%	1/10W 1/10W 1/10W		R1377 R1378	1-216-647-11 1-216-055-00 1-216-065-00 1-216-037-00	METAL GLAZE	680 1.8K 4.7K 330	5% 5%	1/10W 1/10W 1/10W		
R1312 R1313 R1314	1-216-023-00 1-216-097-00 1-216-081-00	METAL GLAZE METAL GLAZE METAL GLAZE	22K	5% 5%	1/10W 1/10W 1/10W		! R1380	1-216-645-11	METAL CHIP METAL CHIP METAL GLAZE	560 680 10K	0.50%			
R1316 R1317 R1319	1-216-065-00 1-216-033-00 1-216-085-00	METAL GLAZE METAL GLAZE METAL GLAZE	4.7K 220	5% 5% 5%	1/10W 1/10W		R1381 R1382 R1383 R1384 R1385	1-216-073-00 1-208-812-11 1-216-091-00 1-216-073-00	METAL CHIP METAL GLAZE METAL GLAZE	18K 56K 10K	0.50%			
R1320 R1321 R1322 R1324	1-216-057-00 1-216-649-11 1-216-057-00 1-216-061-00	METAL GLAZE METAL CHIP METAL GLAZE METAL GLAZE	33K 2.2K 820 2.2K 3.3K	5% 0.50% 5% 5%	1/10W 1/10W 1/10W 1/10W		R1384 R1385 R1386 R1387 R1388 R1389 R1390	1-216-077-00 1-208-784-11 1-216-689-11	METAL GLAZE METAL CHIP METAL CHIP	39K	0.50%	1/10W		
R1325 R1326	1-216-652-11 1-216-073-00	METAL CHIP METAL GLAZE	1.1K	0.50% 5%	1/10W 1/10W		R1389 R1390	1-216-657-11 1-216-647-11	METAL CHIP METAL CHIP	1.8K 680	0.50%	1/10W		
R1327 R1328 R1329	1-216-073-00 1-216-125-00 1-216-103-91	METAL GLAZE METAL GLAZE METAL GLAZE	10K 1.5M 180K	5% 5%	1/10W 1/10W		R1392 R1393 R1394	1-216-041-00 1-216-063-00 1-216-041-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	100 470 3.9K 470	5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W		
R1330 R1331 R1332	1-216-081-00 1-208-810-11 1-216-671-11	METAL GLAZE METAL CHIP METAL CHIP		0.50%	1/10W 1/10W 1/10W 1/10W		R1396	1-216-071-00 1-216-071-00 1-216-065-00	METAL GLAZE METAL GLAZE METAL GLAZE	8.2K 8.2K 4.7K	5%	1/10W 1/10W 1/10W		
R1333 R1334 R1335	1-216-049-91 1-216-063-00 1-249-401-11	METAL GLAZE METAL GLAZE CARBON	1K 3.9K		1/10W 1/10W		R1399 R1401 R1402	1-216-073-00 1-216-085-00 1-216-295-91	METAL GLAZE METAL GLAZE CONDCTOR, CHI	10K 33K	5%	1/10W 1/10W		
R1336 R1337 R1338	1-216-095-00 1-216-061-00 1-216-647-11 1-216-033-00	METAL GLAZE METAL GLAZE METAL CHIP METAL GLAZE	82K 3.3K 680 220	5% 5% 5% 0.50%	1/10W 1/10W 1/10W 1/10W		R1403 R1404 R1405 R1406	1-216-651-11	METAL CHIP METAL CHIP METAL GLAZE METAL CHIP	1K 18K 8.2K 1.2K	0.50% 0.50% 5% 0.50%	1/10W 1/10W		
R1340 R1341 R1342	1-216-033-00 1-216-033-00 1-216-083-00	METAL GLAZE METAL GLAZE METAL GLAZE	220 220 27K	5% 5% 5%	1/10W 1/10W 1/10W		R1407	1-216-061-00	METAL GLAZE METAL GLAZE	3.3K 470K	5% 5%	1/10W 1/10W		
R1343 R1344	1-216-037-00 1-216-093-00	METAL GLAZE METAL GLAZE	330 68K	5% 5%	1/10W 1/10W			1-216-295-91 1-216-053-00 1-216-073-00	CONDCTOR, CHI METAL GLAZE METAL GLAZE	1.5K 10K	5% 5%	1/10W 1/10W 1/10W		
R1345 R1346 R1347 R1348 R1349	1-216-109-00 1-216-097-00 1-216-073-00 1-216-071-00 1-216-035-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	330K 100K 10K 8.2K 270	55% 55% 55%	1/10W 1/10W 1/10W 1/10W 1/10W		R1412 R1413 R1414 R1415	1-216-081-00 1-216-057-00 1-216-093-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	270K 22K 2.2K 68K	5% 5% 5%	1/10W 1/10W 1/10W		
R1350	1-216-073-00 1-216-033-00	METAL GLAZE METAL GLAZE	10K 220	5% 5%	1/10W 1/10W		R1416 R1417	1-216-113-00 1-216-033-00	METAL GLAZE METAL GLAZE	470K 220	5%	1/10W 1/10W		
R1353 R1354 R1355	1-216-065-00 1-216-089-00 1-216-033-00	METAL GLAZE METAL GLAZE METAL GLAZE	4.7K 47K 220	5% 5% 5%	1/10W 1/10W 1/10W		R1421	1-216-649-11	METAL GLAZE METAL GLAZE METAL GLAZE METAL CHIP	.820	0.50%	1/10W 1/10W 1/10W 1/10W		
R1356 R1357 R1358 R1359	1-216-105-91 1-216-101-00 1-216-071-00 1-216-099-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	220K 150K 8.2K 120K	5% 5% 5%	1/10W 1/10W 1/10W 1/10W		R1422 R1423 R1424	1-216-085-00 1-216-057-00 1-216-081-00	METAL GLAZE METAL GLAZE METAL GLAZE	33K 2.2K 22K	5% 5%	1/10W 1/10W 1/10W		
R1360 R1361	1-216-065-00 1-216-113-00	METAL GLAZE METAL GLAZE	4.7K	5%	1/10W		R1425 R1426 R1427	1-216-013-00 1-216-113-00 1-208-812-11	METAL GLAZE METAL GLAZE METAL CHIP	33 470K 18K	5% 5% 0.50%	1/10W 1/10W 1/10W		
R1362 R1363 R1364 R1365	1-216-676-11 1-216-113-00 1-216-073-00 1-216-131-11	METAL CHIP METAL GLAZE METAL GLAZE METAL GLAZE	11K 470K 10K 2.7M	0.50% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W		R1428 R1429 R1430 R1431	1-216-061-00 1-208-799-11 1-216-073-00 1-216-129-00	METAL GLAZE METAL CHIP METAL GLAZE METAL GLAZE	3.3K 5.1K 10K 2.2M	5% 0.50% 5% 5%	1/10W 1/10W		
R1366 R1367 R1368	1-216-081-00 1-216-660-11 1-216-059-00	METAL GLAZE METAL CHIP METAL GLAZE	22K 2.4K 2.7K	5%	1/10W		R1432 R1433	1-216-089-00 1-216-085-00	METAL GLAZE METAL GLAZE	47K 33K	5%	1/10W		
R1369 R1370	1-216-051-00 1-216-105-91	METAL GLAZE METAL GLAZE	1.2K 220K	5% 5%	1/10W 1/10W		R1434 R1435 R1436 R1437	1-216-645-11 1-216-055-00 1-216-073-00 1-216-069-00	METAL CHIP METAL GLAZE METAL GLAZE METAL GLAZE	560 1.8K 10K 6.8K	0.50% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W		
R1371 R1372 R1373 R1374	1-216-113-00 1-216-089-00 1-216-063-00 1-216-101-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	470K 47K 3.9K 150K	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W		R1438	1-216-073-00 1-216-079-00	METAL GLAZE	10K 2.7K		1/10W 1/10W		



 The components identified by in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used. The components identified by shading and mark \triangle are critical for safety.

Replace only with part number specified.

Les composants identifies par une trame et une marque A sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

REF.NO.	PART NO.	DESCRIPTION				REMARK	REF.NO.	PART NO.	DESCRIPTION				REMARK
R1440	1-216-041-00	METAL GLAZE	470		1/10W		R1507	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1442 R1443 R1444	1-216-073-00 1-216-013-00 1-216-057-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	220 10K 33 2.2K	5% 5% 5%	1/10W 1/10W 1/10W 1/10W		R1509 R1510 R1511	1-216-360-11	METAL GLAZE METAL GLAZE METAL GLAZE METAL OXIDE	39K 68K 15K 8.2	5% 5% 5%		F
R1445 R1446 R1447 R1448 R1449	1-216-071-00 1-216-071-00 1-216-081-00 1-216-085-00 1-216-057-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	8.2K 8.2K 22K 33K 2.2K	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W		R1514 R1515	1-216-647-11 1-247-752-11 1-247-711-11 1-216-350-11 1-216-101-00	METAL CHIP CARBON CARBON METAL OXIDE METAL GLAZE	680 1K 680 1.2 150K	0.50% 5% 5% 5%	1/2W 1/4W	F F F
R1451	1-216-129-00 1-216-093-00 1-216-085-00 1-216-013-00 1-216-065-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	2.2M 68K 33K 33 4.7K	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W		R1518 R1519 R1520 R1521	1-215-867-00 1-216-355-11 1-216-027-00 1-216-029-00	METAL OXIDE METAL OXIDE METAL GLAZE METAL GLAZE	470 3.3 120 150	5% 5% 5%	1W 1W 1/10W 1/10W	F F
R1455		METAL GLAZE	470K	5% 5%	1/10W 1/10W		R1522 R1523	1-249-400-11 1-216-350-11	CARBON METAL OXIDE	39 1.2	5% 5%	1/4W 1W	F
R1457 R1458 R1459	1-216-089-00 1-216-085-00 1-216-133-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	2.2M 47K 33K 3.3M	5% 5% 5%	1/10W 1/10W 1/10W		R1526	1-216-427-00 1-216-083-00 1-216-089-00 1-249-413-11	METAL OXIDE METAL GLAZE METAL GLAZE CARBON	120 27K 47K 470	5% 5% 5% 5% 5%	1W 1/10W 1/10W 1/4W	F
R1461		METAL CHIP	100K 560 560	0.50%	1/10W 1/10W 1/10W		R1528	1-215-869-11	METAL OXIDE SOLID	1K		1W 1/2W	F
R1463 R1464	1-216-645-11 1-216-645-11 1-216-057-00 1-216-097-00	METAL CHIP METAL CHIP METAL GLAZE METAL GLAZE	560 2.2K	0.50% 5%	1/10W 1/10W 1/10W		R1530 R1531 R1532 R1533	1-202-829-11 1-216-115-00 1-247-697-11 1-216-059-00 1-249-414-11	METAL GLAZE CARBON METAL GLAZE CARBON	8.2K 560K 56 2.7K 560	52	1/10W 1/4W 1/10W 1/10W	
	1-216-057-00 1-216-055-00 1-216-073-00 1-216-091-00 1-216-057-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	1.8K 10K 56K 2.2K	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W			1-216-659-11	METAL CHIP	2.2K	0.50%		
R1470	1-216-057-00	METAL GLAZE	2.2K		1/10W		R1537	1-249-389-11 1-216-073-00	CARBON METAL GLAZE	4.7 10K	5% 5%	1/4W 1/10W	F
R1473 R1474	1-216-049-91 1-216-085-00 1-216-081-00 1-216-687-11		33K 22K 33K	5% 5% 0.50%	1/10W 1/10W 1/10W 1/10W		R1540 R1541 R1542	1-216-689-11 1-216-105-91 1-216-081-00 1-216-111-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	39K 220K 22K 390K	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W	
R1476	1-216-677-11 1-216-063-00	METAL GLAZE	12K 3.9K	5%	1/10W 1/10W		i	1-216-027-00 1-216-117-00	METAL GLAZE	120 680K		1/10W 1/10W	
R1478 R1480	1-216-057-00 1-216-061-00 1-216-089-00	METAL GLAZE METAL GLAZE METAL GLAZE	2. 2K 3. 3K 47K	5% 5% 5%	1/10W 1/10W 1/10W		R1545 R1547 R1548	1-216-117-00 1-216-101-00 1-216-393-00 1-216-057-00 1-260-094-11	METAL GLAZE METAL OXIDE METAL GLAZE	150K 2.2 2.2K 390	577777775555555555555555555555555555555	1/10W	F
R1481 R1482 R1483	1-216-115-00 1-216-089-00 1-216-089-00	METAL GLAZE METAL GLAZE METAL GLAZE	560K 47K 47K	5% 5% 5%	1/10W 1/10W 1/10W		i	1-216-105-91	CARBON METAL GLAZE	220K		1/2W 1/10W	
R1484	1-216-081-00	METAL GLAZE METAL GLAZE METAL GLAZE	22K 470K	5% 5%	1/10W 1/10W 1/10W		R1551	1-249-393-11 1-216-091-00 1-216-091-00 1-216-059-00	CARBON METAL GLAZE METAL GLAZE METAL GLAZE	10 56K 56K 2.7K	5% 5%	1/4W 1/10W 1/10W 1/10W	F
R1487 R1488 R1489	1-216-113-00 1-216-083-00 1-216-069-00	METAL GLAZE METAL GLAZE METAL GLAZE	470K 27K 6.8K	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W		R1555 R1556 R1557	1-216-295-91 1-216-071-00 1-218-760-11	CONDCTOR, CHI METAL GLAZE METAL CHIP		5% 0.50%	1/10W	
R1490 R1491	1-216-035-00 1-216-035-00	METAL GLAZE	270 270	1	1/10W		R1558 R1559	1-249-393-11 1-249-393-11	CARBON CARBON	10 10	5% 5%	1/4W 1/4W	F
R1492 R1493 R1494 R1495	1-216-035-00 1-216-083-00 1-216-081-00 1-216-089-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	270 27K 22K 47K	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W		R1560 R1561 R1562	1-216-049-91 1-208-812-11 1-214-964-00 1-214-964-00	METAL GLAZE METAL CHIP METAL METAL	1K 18K 1M 1M	5%	1/10W 1/10W 1/4W 1/4W	
R1498 R1499	1-216-057-00 1-216-057-00	METAL GLAZE METAL GLAZE	2.2K 2.2K	5% 5%	1/10W 1/10W		R1564	1-208-812-11	METAL CHIP	18K	0.50%	1/10W	
R1500 R1501 R1502	1-216-647-11 1-216-071-00 1-260-105-11	METAL CHIP METAL GLAZE CARBON	680 8.2K 3.3K	0.50% 5% 5%	1/10W 1/10W 1/2W		R1567 R1568 R1569 R1570	1-216-089-00 1-216-081-00 1-216-073-00 1-216-073-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	47K 22K 10K 10K	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W	
R1503 R1504 R1505	1-216-063-00 1-208-817-11 1-247-688-11	METAL GLAZE METAL CHIP CARBON	3.9K 30K 10	5% 0.50% 5%	1/10W 1/10W 1/4W	F	R1571	1-216-103-91	METAL GLAZE	180K	5% 5%	1/10W 1/10W	
R1506	1-216-037-00	METAL GLAZE	330	5%	1/10W	•		1-216-073-00		10K	5%	1/10W	



REF.NO. PART NO.	DESCRIPTION			REMARK	{REF.NO.	PART NO.	DESCRIPTION				REMARK
R1574 1-216-041-	OO METAL GLAZE	470	5% 1/10W	***************************************		1-216-081-00		22K	5%	1/10W	
R1575 1-216-025- R1576 1-216-025- R1577 1-216-025- R1578 1-216-065-	91 METAL GLAZE	470 100 100 100 4.7K	5% 1/10W 5% 1/10W 5% 1/10W 5% 1/10W		R2363 R2364 R2365 R2366	1-216-065-00 1-216-025-91 1-216-687-11 1-216-067-00	METAL GLAZE METAL GLAZE METAL CHIP METAL GLAZE	5.6K	5% 5% 0.50% 5%	1/10W	
R1579 1-216-690- R2300 1-216-065- R2301 1-216-065- R2302 1-216-671- R2303 1-216-093-	11 METAL CHIP 00 METAL GLAZE 00 METAL GLAZE 11 METAL CHIP 00 METAL GLAZE	43K 4.7K 4.7K 6.8K 68K	0.50% 1/10W 5% 1/10W 5% 1/10W 0.50% 1/10W 5% 1/10W		R2367 R2368 R2369 R2371	1-216-025-91 1-216-687-11 1-216-067-00 1-216-099-00 1-216-095-00 1-216-049-91 1-216-113-00 1-216-097-00 1-216-089-00 1-216-089-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	120K 4.7K 82K 1K 470K 100K		1/10W 1/10W 1/10W 1/10W	
R2304 1-216-105- R2305 1-216-085- R2306 1-216-089- R2307 1-216-033-	91 METAL GLAZE 00 METAL GLAZE 00 METAL GLAZE 00 METAL GLAZE	220K 33K 47K 220	5% 1/10W 5% 1/10W 5% 1/10W 5% 1/10W		R2372 R2374 R2375 R2376	1-216-113-00 1-216-097-00 1-216-089-00 1-216-089-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	47K 47K		1/10W 1/10W 1/10W 1/10W	
R2308 1-216-103- R2309 1-216-049-	91 METAL GLAZE 91 METAL GLAZE	180K 1K	5% 1/10W 5% 1/10W		R2377 R2378 R2379	1-216-033-00 1-216-089-00 1-216-033-00	METAL GLAZE METAL GLAZE METAL GLAZE	220 47K 220	5% 5% 5% 5%	1/10W 1/10W 1/10W	
R2310 1-216-095- R2311 1-216-073- R2312 1-216-053- R2313 1-216-049-	OO METAL GLAZE OO METAL GLAZE 91 METAL GLAZE	82K 10K 1.5K 1K	5% 1/10W 5% 1/10W 5% 1/10W 5% 1/10W		R2380 R2381 R2382 R2383	1-216-089-00 1-216-089-00 1-216-089-00 1-216-033-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	47K 47K 47K 220	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W	
R2314 1-216-645- R2315 1-208-810- R2316 1-216-081- R2317 1-216-049- R2318 1-216-069-	11 METAL CHIP OO METAL GLAZE 91 METAL GLAZE	15K 22K 1K 6.8K	0.50% 1/10W 0.50% 1/10W 5% 1/10W 5% 1/10W		R2385 R2386 R2387	1-216-073-00 1-216-073-00 1-216-073-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	39K 10K 10K 10K 220	5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	
R2319 1-216-093- R2320 1-216-677- R2321 1-216-057- R2322 1-216-065- R2323 1-208-814-	11 METAL CHIP 00 METAL GLAZE 00 METAL GLAZE	68K 12K 2.2K 4.7K 22K	5% 1/10W 0.50% 1/10W 5% 1/10W 5% 1/10W 0.50% 1/10W		R2390 R2391 R2392 R2393	1-216-647-11 1-216-647-11 1-216-073-00 1-216-073-00	METAL GLAZE	680 10K 10K	0.50%	1/10W 1/10W 1/10W 1/10W	
R2324 1-216-073- R2325 1-216-063-	OO METAL GLAZE	10K 3.9K	5% 1/10W 5% 1/10W		R2394 R2396	1-216-081-00 1-216-041-00	METAL GLAZE	22K 470		1/10W 1/10W	
R2326 1-216-041- R2327 1-216-059- R2328 1-216-049-	OO METAL GLAZE 91 METAL GLAZE	2.7K 1K	5% 1/10W 5% 1/10W		R2397 R2398 R2399 R2501	1-216-113-00 1-216-109-00 1-216-073-00 1-216-083-00 1-216-077-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	470K 330K 10K 27K 15K	5% 5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	
R2329 1-216-059- R2330 1-216-049- R2331 1-216-059- R2332 1-216-049- R2333 1-216-089-	91 METAL GLAZE 00 METAL GLAZE 91 METAL GLAZE 00 METAL GLAZE	2.7K 1K 2.7K 1K 47K	5% 1/10W 5% 1/10W 5% 1/10W 5% 1/10W		R2551 R2552 R2553 R2555	1-216-091-00 1-216-085-00 1-216-083-00 1-216-055-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	56K 33K 27K 1.8K 1.2K	5% 5% 55% 55%	1/10W 1/10W 1/10W 1/10W	
R2334 1-216-041- R2335 1-216-061- R2336 1-216-065- R2337 1-216-037- R2338 1-216-073-	OO METAL GLAZE OO METAL GLAZE OO METAL GLAZE	470 3.3K 4.7K 330 10K	5% 1/10W 5% 1/10W 5% 1/10W 5% 1/10W 5% 1/10W		1	1-216-051-00 1-216-067-00 1-216-057-00 1-216-039-00	METAL GLAZE METAL GLAZE METAL GLAZE	5.6K 2.2K 390	5% 5%	1/10W 1/10W 1/10W 1/10W	
R2339 1-216-037- R2341 1-216-037-	OO METAL GLAZE	330 330	5% 1/10W 5% 1/10W 5% 1/10W		R2561	1-216-069-00 1-216-001-00	METAL GLAZE	6.8K 10	5%	1/10W 1/10W	
R2342 1-216-071- R2343 1-216-081- R2344 1-216-121-	OO METAL GLAZE OO METAL GLAZE OO METAL GLAZE	8.2K 22K 1M	5% 1/10W 5% 1/10W		R2562 R2563 R3001 R3301 R3302	1-216-001-00 1-216-057-00 1-249-393-11 1-216-073-00 1-216-065-00	METAL GLAZE METAL GLAZE CARBON METAL GLAZE METAL GLAZE	10 2.2K 10 10K 4.7K	5% 5% 5% 5%	1/10W 1/10W 1/4W 1/10W 1/10W	F
R2345 1-208-812- R2346 1-216-061- R2347 1-216-061- R2348 1-216-061- R2349 1-208-810-	OO METAL GLAZE OO METAL GLAZE OO METAL GLAZE	18K 3.3K 3.3K 3.3K 15K	0.50% 1/10W 5% 1/10W 5% 1/10W 5% 1/10W 0.50% 1/10W		R3303 R3304 R3305	1-216-065-00 1-216-065-00 1-216-061-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	4.7K 4.7K 4.7K 3.3K 3.9K	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W	
R2350 1-216-061- R2351 1-216-061-	OO METAL GLAZE	3.3K 3.3K	5% 1/10W 5% 1/10W 5% 1/10W		R3306 R3307 R3308	1-216-063-00 1-216-091-00 1-216-097-00	METAL GLAZE METAL GLAZE	56K 100K	5% 5%	1/10W 1/10W	
R2352 1-216-061- R2353 1-216-041- R2354 1-216-025-	00 METAL GLAZE 91 METAL GLAZE	3.3K 470 100	5% 1/10W 5% 1/10W		R3309 R3310 R3311 R3312	1-216-073-00 1-216-049-91 1-216-091-00 1-216-105-91	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	10K 1K 56K 220K	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W	
R2356 1-216-089- R2357 1-216-091- R2358 1-216-025- R2361 1-216-099-	00 METAL GLAZE 91 METAL GLAZE	47K 56K 100 120K	5% 1/10W 5% 1/10W 5% 1/10W 5% 1/10W		R3320 R3333	1-216-085-00 1-216-113-00	METAL GLAZE METAL GLAZE	33K 470K	5% 5%	1/10W 1/10W	





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REF.NO.	PART NO.	DESCRIPTION				REMARK	REF.NO.	PART NO.	DESCRIPTION			REMARK
R3335 R3337 R3338	1-216-073-00 1-216-113-00 1-216-099-00 1-216-103-91 1-216-690-11	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL CHIP	10K 470K 120K 180K 43K	5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W		RV501	1-223-102-00	IABLE RESISTO RES, ADJ, WI NSFORMER>			
R3346 R3347	1-216-095-00 1-216-089-00 1-216-025-91 1-216-025-91 1-216-025-91	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	82K 47K 100 100	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W		T500 T501 ▲	1-426-668-11 - 1-453-163-11	TRANSFORMER, TRANSFORMER	FERRITE (HD ASSY, FLYBAC	OT)	
R3350 R3355 R3356	1-216-025-91 1-216-113-00 1-216-089-00 1-216-051-00 1-216-051-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	100 470K 47K 1.2K 1.2K	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W		TH500	1-807-970-11	RMISTOR> THERMISTOR STAL>			
R3358 R3359 R3360 R3361	1-216-051-00 1-216-081-00 1-216-073-00 1-216-089-00	METAL GLAZE	1.2K 22K 10K 47K 1K	5%	1/10W 1/10W 1/10W 1/10W 1/10W		1	1-579-175-11 1-577-259-11 1-527-722-00	VIBRATOR, CR OSCILLATOR,	YSTAL CRYSTAL	*****	*****
R3363 R3364 R3376 R3378	1-216-049-91 1-216-073-00 1-216-081-00 1-216-115-00		1 K 10 K 22 K 560 K 470	5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W			*A-1304-032-A 1-540-044-11	*******			
R3382 R3383 R3384	1-216-645-11 1-216-069-00	METAL CHIP METAL GLAZE METAL GLAZE		0.50% 5% 5%			C1200 C1201 C1202	1-124-472-11 1-164-161-11 1-164-161-11	CERAMIC CHIP	470MF 0.0022MF 0.0022MF	20% 10% 10%	10V 50V 50V
R3390 R3394 R3395 R3396	1-216-057-00 1-216-089-00 1-216-049-91 1-216-041-00		2.2K 47K 1K 470 470		1/10W 1/10W 1/10W 1/10W 1/10W		C1204 C1205 C1208	1-164-346-11 1-164-346-11 1-126-101-11	CERAMIC CHIP	1MF 1MF 100MF	5% 5% 20%	50V 50V 16V 16V
R3399 R3400 R3401	1-216-061-00		150K 100 56K 3.3K 62K	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W		C1212 C1213 C1214 C1215	1-163-109-00 1-126-301-11 1-126-301-11 1-126-301-11	CERAMIC CHIP ELECT ELECT ELECT	47PF 1MF 1MF 1MF	5% 20% 20% 20%	16V 50V 50V 50V 50V
R3404 R3405 R3406	1-216-067-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	100 10K 5.6K 10K 2.2K	5%	1/10W 1/10W 1/10W 1/10W 1/10W		CN1201	1-126-301-11 <con *1-565-488-11 *1-564-518-11</con 	NECTOR>	1MF OARD TO BOAR	20% D 12P	50 V
R3409 R3410 R4401	1-216-073-00 1-216-025-91 1-216-073-00 1-216-085-00 1-216-113-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	10K 100 10K 33K 470K	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W			<dio 8-719-801-78</dio 	DE>			
R4405 R4407 R4408	1-216-073-00 1-216-067-00 1-216-061-00 1-216-059-00 1-216-059-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	10K 5.6K 3.3K 2.7K 2.7K	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W		101201	<1C> 8-759-708-05 8-759-284-18 8-759-280-74	IC NJM78L05A IC UPD78P014 IC ST24C02CB	YCW		
R4411 R4412 R4413	1-216-059-00 1-216-113-00 1-216-113-00 1-216-295-91 1-216-295-91	METAL GLAZE METAL GLAZE METAL GLAZE CONDCTOR, CHI CONDCTOR, CHI		5% 5% 5%	1/10W 1/10W 1/10W		IC1203 IC1204	8-759-149-05 8-759-335-70 8-759-042-02	IC UPD71051G IC ADM232LAR	B-10-3B4 -REEL		
	1-216-295-91 1-216-295-91	CONDCTOR, CHI					Q1200	<tra 8-729-120-28</tra 	NSISTOR> TRANSISTOR 2	SC1623-L5L6		

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REF.NO. PART NO.	DESCRIPTION			REMARK	REF.NO.	PART NO.	DESCRIPTION			REMARK
	ISTOR>		1 (01)		C628 C629 C630	1-102-038-00 1-124-922-11 1-124-907-11	ELECT ELECT	0.001MF 1000MF 10MF 0.56MF	20% 20% 5%	500V 50V 50V 200V
R1200 1-260-313-51 R1201 1-216-073-00 R1202 1-216-295-91 R1203 1-216-065-00	METAL GLAZE 10 CONDCTOR, CHIP		1/2W 1/10W 1/10W		C631 C632 C633	1-136-853-11 1-124-562-11 1-124-122-11	ELECT	47MF 100MF	20% 20%	160V 50V
R1204 1-216-065-00		.7K 5% .7K 5%	1/10W 1/10W	·	C634 C636	1-124-911-11 1-124-910-11 1-137-484-11	ELECT	220MF 47MF 0.47MF	20% 20% 10%	50V 50V 630V
R1205 1-216-065-00 R1206 1-216-295-91 R1207 1-216-295-91 R1210 1-216-025-91	CONDCTOR, CHIP CONDCTOR, CHIP	.7K 5% 00 5%	1/10W		C1002		NECTOR>	0111		
R1211 1-216-025-91	METAL GLAZE 10	00 5% 00 5% 00 5%	1/10W 1/10W	-	CN602	1-691-960-11 *1-695-561-11	PIN. CONNECT	OR (PC BOARD)) 7P	
R1214 1-216-025-91 R1215 1-216-025-91 R1216 1-216-089-00	METAL GLAZE 10 METAL GLAZE 10 METAL GLAZE 47	00 5% 00 5%	1/10W 1/10W 1/10W 1/10W		CN603 CN604 CN605	*1-508-765-00 *1-564-506-11 *1-573-964-11	PIN, CONNECT PLUG, CONNECT PIN, CONNECT	OR (5MM PITO TOR 3P OR (PC BOARI	(H) 3P	
R1218 1-216-089-00	METAL GLAZE 47	7K 5%	1/10W 1/10W		CN606	*1-564-508-11	PLUG, CONNEC	TOR 5P		
R1220 1-216-025-91	METAL GLAZE 10	UU 3/6	1/10#			<010>			A	
<swi \$1200 1-570-623-11</swi 	TCH> SWITCH, DIP				D602 4 D603 4	\$ 8-719-032-39 \$ 8-719-032-39 \$ 8-719-032-39 \$ 8-719-032-39	DIODE DSA3A4 DIODE DSA3A4 DIODE DSA3A4 DIODE DSA3A4	-F3 -F3		
< CRY	STAL>				D605	8-719-971-65	DIODE RGP15J			
X1201 1-577-619-11	VIBRATOR, CRYSTA		*****	******	D606 D607 D608 D609	8-719-300-33 8-719-300-33 8-719-911-19 8-719-300-33	DIODE RU-3AM DIODE RU-3AM DIODE 1SS119 DIODE RU-3AM	-25		
	G BOARD, COMPLET				D610	8-719-300-33	DIODE RU-3AM			
	G BOARD, COMPLET	** TE (PVM-1			D612 D613 D614 D615 D616	8-719-045-48 8-719-971-65 8-719-045-48 8-719-971-65 8-719-300-33	DIODE FML-G1 DIODE RGP15J DIODE FML-G1 DIODE RGP15J DIODE RU-3AM	I-6040 L2S I-6040		
<caf< td=""><td>ACITOR></td><td></td><td></td><td></td><td>D617</td><td>8-719-110-46</td><td></td><td></td><td></td><td></td></caf<>	ACITOR>				D617	8-719-110-46				
C602 A. 1-136-360-51 C603 A. 1-136-360-51		22MF 22MF	20% 20%	250V 250V	1	<fus< td=""><td>SE></td><td></td><td></td><td></td></fus<>	SE>			
C604 A 1-161-741-21 C605 A 1-161-741-21 C606 A 1-161-741-21	CERAMIC 0.0 CERAMIC 0.0 CERAMIC 0.0	001MF 001MF 001MF	10% 10% 10%	400V 400V 400V	!	L 1-532-742-11 1-533-189-11 L 1-532-742-11	HOLDER, FUSE FUSE, GLASS	TUBE [1.6A/		
C607 A 1-161-741-21 C608 A 1-161-953-71 C609 A 1-161-953-71	CERAMIC U.	001MF 0047MF 0047MF	10% 20% 20%	400V 400V 400V	1 1 2 2		HOLDER, FUSE			
C610 A 1-161-953-71 C611 A 1-161-953-71		0047MF 0047MF	20% 20%	400V 400V	FD(01		RRITE BEAD> FERRITE BEAL	ה זאטוורדום ה	451111	
C612 A 1-137-484-61 C613 1-137-484-11 C614 1-129-720-00 C615 1-136-619-11 C616 1-124-910-11	FILM O. FILM O. FILM O.	47MF 47MF 033MF 0016MF	10% 10% 10% 3% 20%	630V 630V 630V 2KV 35V	FB601 FB602 FB603 FB604 FB605	1-410-396-41 1-410-396-41	FERRITE BEAL FERRITE BEAL FERRITE BEAL FERRITE BEAL	D INDUCTOR O D INDUCTOR O D INDUCTOR O	.45UH .45UH .45UH	
C617 1-136-557-11 C618 1-126-096-11	ELECT 10	0033MF	10% 20%	630V 25V	10001	<103		2		
C619 1-124-911-11 C620 1-161-754-00 C621 1-125-494-11	CERAMIC 0.	COMF OOIMF SOMF	20% 10% 20%	50V 2KV 160V	10601	8-749-924-69 4-382-854-11 8-749-010-47 4-382-854-11	IC STR-M652 SCREW (M3X10 IC STR-S311 SCREW (M3X10	0), P, SW (+ 5		
C622 1-102-038-00 C623 1-126-944-11		.001MF BOOMF	20%	500V 25V	10603	8-759-701-56	IC NJM78M05	FA		
C623 1-126-944-11 C624 1-102-038-00 C625 1-124-557-11 C626 1-102-038-00	CERAMIC 0. ELECT 10	001MF 000MF 001MF	20%	500V 25V 500V	10604	4-382-854-11 8-759-231-53 4-382-854-11	SCREW (M3X1) IC TA7805S SCREW (M3X1)			
C627 1-124-922-11	ELECT 10	OOMF	20%	50V	1					





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REMARK | REF. NO. PART NO. DESCRIPTION REMARK DESCRIPTION REF. NO. PART NO. THP601A1-808-059-32 THERMISTOR, POSITIVE <JUMPER> JW609 1-410-679-31 INDUCTOR 270UH (PVM-1353MD) <VARISTOR> VDR601Δ1-809-942-71 VARISTOR <COIL> 1-411-215-11 COIL, CHOKE 200UH 1-410-679-31 INDUCTOR 270 1-421-421-00 COIL, CHOKE ******************************* 1.601 270UH (PVM-1453MD) 1.1601 *A-1331-299-A C BOARD, COMPLETE ****** *4-374-912-01 COVER (MAIN), CV VOL *4-374-913-01 COVER (REAR LID), CV VOL <PHOTO COUPLER> PH601 8-749-923-50 PHOTO COUPLER PC111YS <CAPACITOR> <TRANSISTOR> 1-102-157-00 1-102-157-00 1-102-157-00 1-102-121-00 1-126-101-11 CERAMIC 560PF 560PF 10% 10% 10% 10% 20% 500V C701 CERAMIC 8-729-140-96 TRANSISTOR 2SD774-34 8-729-303-61 TRANSISTOR 2SC3851-G 4-382-854-11 SCREW (M3X10), P, SW (+); Q603 C702 C703 C704 500V Q601 560PF 500V CERAMIC 0603 0.0022MF CERAMIC 16V 100MF 10% 10% 5% 5% 1-102-074-00 1-162-116-00 1-136-601-11 1-101-880-00 CERAMIC 0.001MF 50V <RESISTOR> C706 680PF 0.01MF 47PF 2KV CERAMIC C707 R601 A. 1-202-885-91 R602 1-216-489-11 R603 1-216-491-11 R604 1-249-418-11 R605 1-249-415-11 1/2W 630V FILM C708 C710 SOLID 20% CERAMIC METAL OXIDE 27K 56K 1.2K 5% 5% 5% 3W F 1-101-880-00 CERAMIC 50V C711 CARBON 1/4W 5% 20% 5% 5% 5% 47PF 50Y 1-101-880-00 680 C712 CERAMIC CARBON 4.7MF 180PF C713 C714 C715 1-123-946-00 1-102-976-00 250V ELECT CERAMIC 3W 50V 10% WIREWOUND 0.15 R606 1-207-642-00 5% 1/4W 1/4W 50V 50V 3.3K 5.6K 5.6K 2.2K 1-102-976-00 180PF 1-249-423-11 1-249-426-11 1-249-426-11 CERAMIC CARBON R607 1-102-976-00 180PF R608 CARBON R609 10% 10% 10% 5% 0.22MF 0.22MF C717 C718 C720 C734 200V MYLAR 1-107-372-11 1-107-372-11 CARBON R610 MYLAR 200V 1-108-700-11 1-102-973-00 MYLAR 0.047MF 200V 1 K 5% 5% 5% 5% 1/4W CARBON R611 1-249-417-11 CERAMIC 1-249-417-11 1-249-419-11 1-249-385-11 1/4W 100PF 507 82 1.5K 2.2 R612 R613 CARBON 1/4W 1/4W 50V 1-102-816-00 CERAMIC 120PF CARBON F CARBON R614 1-102-816-00 CERAMIC 5% 50V 120PF C736R615 1-218-265-11 METAL METAL OXIDE 0.22 5% 5% 5% 5% R616 1-216-341-11 1-216-341-11 1-249-443-11 1W <CONNECTOR> R617 0.47 0.22 R618 R619 CARBON 1/4W F CN701 *1-564-511-11 PLUG, CONNECTOR 8P CN702 *1-573-964-11 PIN, CONNECTOR (PC BOARD) 6P CN703 *1-691-134-11 PIN, CONNECTOR (PC BOARD) 2P 1-216-341-11 METAL OXIDE $\bar{1}/4W$ 1-249-443-11 CARBON R620 1-215-877-11 1-247-700-11 1-249-417-11 1-216-341-11 1 W F METAL OXIDE 22K 5% 5% 5% 5% 5% R621 100 1/4W CARBON R622 R623 R624 CARBON 1 K 1/4W <DIODE> 0.22 F METAL OXIDE DIODE 1SS119-25 DIODE 1SS119-25 DIODE 1SS119-25 DIODE 1SS119-25 8-719-911-19 D701 R625 1-216-341-11 METAL OXIDE 8-719-911-19 8-719-911-19 D702 D703 1-247-895-00 1-247-807-31 1-215-869-11 470K R626 CARBON 8-719-911-19 8-719-911-19 CARBON METAL OXIDE D704 1/4W R631 100 DIODE 1SS119-25 R1602 1 K 1-202-846-00 SOLID 470K 1/2W 8-719-911-19 8-719-901-83 8-719-901-83 8-719-901-83 D706 DIODE 1SS119-25 D707 DIODE 1SS83 D708 DIODE 1883 <RELAY> DIODE D709 D713 8-719-901-83 DIODE 1SS83 RY601A.1-515-738-11 RELAY 8-719-901-83 DIODE 1SS83 8-719-901-83 DIODE 1SS83 8-719-901-83 DIODE 1SS83 D715 D716 D717 <TRANSFORMER> T601 A 1-426-716-11 TRANSFORMER, LINE FILTER (LFT)
T602 A 1-426-716-11 TRANSFORMER, LINE FILTER (LFT)
T603 1-427-885-11 TRANSFORMER, CONVERTER (SRT) <JACK> J701 & 1-526-819-11 SOCKET, PICTURE TUBE

<THERMISTOR>

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REF.NO	. PART NO.	DESCRIPTION				REMARK	REF.NO.	PART NO.	DESCRIPTION				REMARK
	<01						R749 R750		CARBON	47K 39	5%	2W 1/4W	F
L701 L705	1-410-667-31 1-412-532-11		22UH 39UH				R751		CARBON CARBON	220K 220K	5% 5%	1/4W 1/4W	
	<tra< td=""><td>NSISTOR></td><td></td><td></td><td></td><td></td><td>R753</td><td>1-247-887-00</td><td>CARBON</td><td>220K</td><td>5%</td><td>1/4W</td><td></td></tra<>	NSISTOR>					R753	1-247-887-00	CARBON	220K	5%	1/4W	
Q701 Q702	8-729-119-78 8-729-119-78	TRANSISTOR 25	SC2785- SC2785-	HFE HFE					IABLE RESISTOR				
Q703 Q704 Q705	8-729-119-78 8-729-200-17 8-729-200-17	TRANSISTOR 25 TRANSISTOR 25	SC2785- SA1091-	HFE O O			RV7084 RV709	1-230-641-11 1-230-619-11 1-230-641-11	RES, ADJ, MET RES, ADJ, MET	'AL GLA	ZE 110 ZE 2.2)M ?M	
Q706 Q707	8-729-200-17 8-729-326-11	TRANSISTOR 25 TRANSISTOR 25	SC2611	0			******	************* *A-1372-094-A			*****	******	*******
Q708 Q709 Q710	8-729-326-11 8-729-326-11 8-729-200-17	TRANSISTOR 25 TRANSISTOR 25 TRANSISTOR 25	SC2611	0					**********				
Q711	8-729-200-17 8-729-200-17		SA1091-	0				*4-348-208-00	HULDEK, LED				
Q712 Q713 Q714	8-729-255-12 8-729-255-12	TRANSISTOR 25 TRANSISTOR 25	SC2551- SC2551-	0 0			20105		NECTOR>	10D 10D			
Q715 Q716	8-729-119-78	TRANSISTOR 25					CN105 CN106	*1-564-527-11 *1-564-526-11	PLUG, CONNECT	TOR 12P			
Q717		TRANSISTOR 25						<d10< td=""><td>DE></td><td></td><td></td><td></td><td></td></d10<>	DE>				
	<res< td=""><td>ISTOR></td><td></td><td></td><td></td><td></td><td>D2102</td><td>8-719-920-05 8-719-812-32</td><td>DIODE SLP2310 DIODE TLY123</td><td>C-50</td><td></td><td></td><td></td></res<>	ISTOR>					D2102	8-719-920-05 8-719-812-32	DIODE SLP2310 DIODE TLY123	C-50			
R702 R704	1-247-903-00 1-215-405-00	METAL	1M 220	1%	1/4W 1/4W			8-719-901-33					
R705 R706 R707	1-215-405-00 1-215-405-00 1-249-431-11	METAL METAL CARBON	220 220 15K	1% 1% 5%	1/4W 1/4W 1/4W				ISTOR>				
R708	1-249-431-11	CARBON	15K		1/4W		R2107	1-249-419-11 1-249-430-11 1-249-414-11	CARBON	1.5K 12K 560	5%	1/4W 1/4W 1/4W	
R709 R710 R711	1-249-431-11 1-215-391-00 1-215-394-00	CARBON METAL METAL	15K 56 75	5% 5% 1% 1%	1/4W 1/4W 1/4W		R2138	1-249-414-11 1-249-414-11 1-249-414-11	CARBON	560 560	5% 5% 5%	1/4W 1/4W	
R712	1-215-392-00	METAL	62	1% 20%	1/4W 1/2W		R2140 R2141	1-249-414-11 1-249-414-11	CARBON	560 560	5% 5%	1/4W 1/4W	
R715 R716 R717	1-202-818-00 1-216-486-00 1-202-818-00	SOLID METAL OXIDE SOLID	1K 8.2K 1K	5% 20%	3W 1/2W	F	R2142	1-249-414-11 1-249-414-11	CARBON CARBON	560 560	5% 5% 5% 5%	1/4W 1/4W	
R718 R719	1-216-486-00 1-202-818-00	METAL OXIDE SOLID	8.2K 1K	5% 20%	3W 1/2W	F	1	1-249-414-11	CARBON	560 560		1/4W 1/4W	
R720 R722	1-216-486-00 1-202-883-11	METAL OXIDE SOLID	8.2K 680K	5% 20%	3W 1/2W	F	R2148 R2149	1-215-419-00 1-215-414-00	METAL METAL	820 510	5% 1% 1%	1/4W 1/4W	
R723 R724	1-202-838-00 1-202-842-11 1-202-719-00	SOLID SOLID SOLID	100K 220K 1M	20% 20% 20%	1/2W 1/2W 1/2W		R2150 R2151	1-215-409-00 1-215-407-00	METAL METAL	330 270	1% 1%	1/4W 1/4W	
R725 R731	1-249-409-11	CARBON	220		1/4W		R2153	1-215-404-00 1-215-401-11	METAL	200 150	1% 1%	1/4W 1/4W	
R732 R733	1-249-409-11 1-249-409-11	CARBON CARBON	220 220 220	5% 5% 5%	1/4W 1/4W 1/4W	r.	R2154 R2155 R2156	1-215-399-00 1-215-397-00 1-215-421-00	METAL METAL METAL	120 100 1K	1% 1% 1% 1%	1/4W 1/4W 1/4W	
R734 R735	1-249-409-11 1-249-409-11	CARBON CARBON	220	5% 5%	1/4W	F	R2157	1-215-416-00	METAL	620	1%	1/4W	
R736 R737	1-249-409-11 1-247-807-31	CARBON CARBON CARBON	220 100 100	5% 5% 5%	1/4W 1/4W 1/4W	F	R2158 R2159 R2160	1-215-410-00 1-215-405-00 1-215-421-00	METAL METAL METAL	360 220 1K	1% 1% 1%	1/4W 1/4W 1/4W	
R738 R739 R740	1-247-807-31 1-247-807-31 1-249-429-11	CARBON CARBON	100 10K	5% 5%	1/4W 1/4W	F					_,•	-· •··	
R741 R742	1-249-429-11 1-249-429-11	CARBON CARBON	10K 10K	5% 5%	1/4W 1/4W		RV2101	< VAR 1-223-504-21	IABLE RESISTOR		K		
R744 R745	1-249-429-11 1-249-429-11	CARBON CARBON	10K 10K	5% 5%	1/4W 1/4W		RV2103 RV2105	1-223-735-11 1-223-735-11	RES, VAR, CAR RES, VAR, CAR	RBON 20 RBON 20	K K		
R746 R747	1-215-879-11 1-247-725-11	METAL OXIDE	47K 10K	5% 5%	1W 1/4W	F	RV2113	1-223-735-11 1-223-735-11		RBON 20	K		
R748	1-249-923-11		1 K	5% 5%	1/4W	F	RV2117	1-223-504-21	RES, VAR, CAI	RBON 20	K		









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REF.NO.	PART NO.	DESCRIPTION	REMARK
	<swi< th=""><th>TCH></th><th></th></swi<>	TCH>	
S2103	1-570-101-41 1-570-101-41 1-570-101-41 1-570-101-41 1-570-101-41	SWITCH, KEY BOARD SWITCH, KEY BOARD SWITCH, KEY BOARD SWITCH, KEY BOARD SWITCH, KEY BOARD	
S2108	1-570-969-11 1-570-969-11 1-570-101-41 1-570-969-11 1-570-101-41	SWITCH, KEY BOARD SWITCH, KEY BOARD SWITCH, KEY BOARD SWITCH, KEY BOARD SWITCH, KEY BOARD	
S2113 S2114	1-570-101-41 1-570-969-11 1-570-969-11	SWITCH, KEY BOARD SWITCH, KEY BOARD SWITCH, KEY BOARD	
		J BOARD, COMPLETE	*********

<CONNECTOR>

CN608 *1-695-561-11 PIN, CONNECTOR (PC BOARD) 7P

<SWITCH>

S601 & 1-692-921-11 SWITCH, PUSH (A.C. POWER) *************

*A-1390-391-B S BOARD, COMPLETE (PVM-1353MD)

<CAPACITOR>

C805 C806 C807 C810 C811	1-102-978-00 1-136-165-00 1-130-477-00 1-136-165-00 1-136-165-00	CERAMIC FILM MYLAR FILM FILM	220PF 0.1MF 0.0033MF 0.1MF 0.1MF	5% 5% 5% 5%	50V 50V 50V 50V 50V
C812	1-136-495-11	FILM	0.068MF	5%	50V
C813	1-124-907-11	ELECT	10MF	20%	50V
C818	1-136-165-00	FILM	0.1MF	5%	50V

<CONNECTOR>

CN801 *1-565-489-11 CONNECTOR, BOARD TO BOARD 13P

<1C>

IC801 8-759-328-12 IC Z8622812PSC

<COIL>

L801 1-410-470-11 INDUCTOR 10UH

<RESISTOR>

R802 R803 R804 R805	1-249-435-11 1-247-863-91 1-215-454-00 1-215-461-00	CARBON CARBON METAL METAL	33K 22K 24K 47K	5% 5% 1% 1%	1/4W 1/4W 1/4W 1/4W
R808	1-249-417-11	CARBON	1 K	5%	1/4W

REF.NO.	PART NO.	DESCRIPTION			REM	ARK
 R812 R813 R815 R816 R817	1-249-417-11 1-249-417-11 1-249-423-11 1-249-418-11	CARBON CARBON CARBON CARBON CARBON	1K 1K 3.3K 1.2K	5% 5% 5% 5% 5%	1/4W 1/4W 1/4W 1/4W 1/4W	
 R818 R819 R820	1-249-418-11 1-249-418-11 1-249-422-11	CARBON CARBON CARBON	1.2K 1.2K 2.7K	5% 5% 5%	1/4W 1/4W 1/4W	
*****	************* *A-1390-498-A	X BOARD, COMP	LETE	*****		****

<CONNECTOR>

CN108 *1-564-518-11 PLUG, CONNECTOR 3P

<DIODE>

D001	8-719-301-36	DIODE	SEL4410E-D
D002	8-719-301-36	DIODE	SEL4410E-D
D003	8-719-301-36	DIODE	SEL4410E-D
D004	8-719-301-36	DIODE	SEL4410E-D

MISCELLANEOUS *********

▲ 1-426-442-21 ▲ 1-532-745-11 ▲ 1-576-230-11 1-537-877-11 1-544-063-12	COIL, DEMAGNETIZATION PUSE, GLASS TUBE 3.15A/125V (PVM-1353MD) FUSE, (H.B.C.) 3.15A/25OV (PVM-1453MD) TERMINAL BOARD ASSY, I/O (Q BOARD) SPEAKER
1-690-871-11	CABLE (MINI DIN) 8P

V901 A.8-734-525-05 PICTURE TUBE 14FZ4 (PVM-1353MD) A.8-734-822-05 PICTURE TUBE 14FZ4 (PVM-1353MD) A.8-734-523-05 PICTURE TUBE 14FZ-2 (PVM-1453MD) Δ. 8-734-622-05 PICTURE TUBE 14FZ2 (PVM-1453MD)

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REF.NO. PART NO.

DESCRIPTION

REMARK

ACCESSORIES AND PACKING MATERIALS

▲ 1-551-631-22 ▲ 1-559-945-11 1-690-871-11 3-170-078-01 3-798-310-21	CORD, POWER (6.0A/250V) (PVM-1453MD) CORD, POWER (10A/1250V) (PVM-1353MD) CABLE (MINI DIN) 8P HOLDER (B), PLUG MANUAL, INSTRUCTION (PVM-1353MD)
3-798-310-41 3-798-710-11 *4-043-762-01 *4-043-763-01 4-048-070-01	MANUAL, INSTRUCTION (PVM-1453MD) MANUAL, PROTOCOL CUSHION (UPPER) (ASSY) CUSHION (LOWER) (ASSY) HINGE, COVER
4-048-071-01 4-048-073-01 4-048-145-01 4-048-145-11 4-048-176-01	COVER, CONTROL PANEL COVER, DROP PROTECTION MANUAL, INSTANT INFORMATION (PVM-1353MD) MANUAL, INSTANT INFORMATION (PVM-1453MD) SHEET, ADHESIVE
*4-048-226-01 *4-048-230-01 *4-381-155-01	INDIVIDUAL CARTON (PVM-1353MD) INDIVIDUAL CARTON (PVM-1453MD) BAG, PROTECTION